

1 SCOTT J. LEIPZIG (BAR NO. 192005)
EMILY L. MURRAY (BAR NO. 223815)
2 ALLEN MATKINS LECK GAMBLE
MALLORY & NATSIS LLP
3 515 South Figueroa Street, Ninth Floor
Los Angeles, California 90071-3309
4 Phone: (213) 622-5555
Fax: (213) 620-8816
5 E-Mail: sleipzig@allenmatkins.com
E-Mail: emurray@allenmatkins.com

6 Attorneys for Petitioners

7 **BEFORE THE CALIFORNIA**

8 **STATE WATER RESOURCES CONTROL BOARD**

9
10 LEVON INVESTMENTS, LLC; ROSE
MARIE TOWLE, AS TRUSTEE OF THE
11 ROSE MARIE TOWLE REVOCABLE
TRUST; JOHN L. DEMOURKAS, AS
12 TRUSTEE OF THE JOHN L.
DEMOURKAS REVOCABLE TRUST;
13 JOHN RIDELL, AS TRUSTEE OF THE
CHRISTINA DEMOURKAS 2008 TRUST;
14 STEPHANIE MARIE REDDING, AS
TRUSTEE OF THE STEPHANIE MARIE
15 REDDING 2008 TRUST; ELISA ANN
REDDING, AS TRUSTEE OF THE ELISA
16 ANN REDDING 2008 TRUST; and
WELLS FARGO BANK, AS TRUSTEE
17 OF THE JHERI ELIAS REDDING 1983
IRREVOCABLE TRUST,

18 Petitioners,

19 v.

20 REGIONAL WATER QUALITY
21 CONTROL BOARD, CENTRAL COAST
REGION,

22 Respondent,

23 RENCO ENCODERS, INC. and ARCADIS
24 U.S., INC.,

25 Real Parties in Interest.

PETITION CHALLENGING MAY 13,
2011 REGIONAL WATER QUALITY
CONTROL BOARD, CENTRAL COAST
REGION APPROVAL OF REVISIONS
TO MONITORING AND REPORTING
PROGRAM NO. R3-2005-0143 AND
ENDORSEMENT OF MONITORED
ATTENUATION

TABLE OF CONTENTS

	<u>Page</u>
1	
2	
3 I. INTRODUCTION.....	1
4 II. FACTUAL BACKGROUND.....	4
5 A. Renco's Contaminated Property and Contract with	
6 LFR/Arcadis.....	4
7 B. Renco Contaminated Petitioners' Property.....	4
8 C. The Regional Board Ordered Renco and Arcadis to Remediate	
9 Petitioners' Property.....	5
10 D. 2010 Fourth Quarter Results Show Elevated Levels of	
11 Contamination Remain on Petitioners' Property.....	6
12 E. Arcadis' Misleading Communications with the Regional Board	
13 in January and March 2011.....	7
14 F. The Regional Board's May 13 Action.....	9
15 III. ARGUMENT.....	9
16 A. Standard for State Board Petition.....	9
17 B. The May 13 Action was Inappropriate and Improper.....	10
18 1. The Objectives of the 2009 RAP Have Not Been	
19 Achieved.....	10
20 2. Further Investigation and Remediation are Necessary	
21 for Petitioners' Property.....	12
22 3. The Regional Board's May 13 Action Fails to Protect	
23 Water Quality.....	13
24 IV. CONCLUSION.....	14
25	
26	
27	
28	

TABLE OF AUTHORITIES

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Page(s)

Statutes

Cal. Water Code § 13000 10, 13
Cal. Water Code § 13001 13
Cal. Water Code § 13267 9
Cal. Water Code § 13300 9
Cal. Water Code § 13320 3, 9, 14
Cal. Water Code § 13320(c) 10

Regulations

23 Cal. Code Regs. § 2050 3, 14
23 Cal. Code Regs. § 2050(a) 10
23 Cal. Code Regs. § 2050(b) 9
23 Cal. Code Regs. § 2052 10
23 Cal. Code Regs. §§ 2050-2068 9

1 **I. INTRODUCTION.**

2 This Petition is from a decision by a Regional Water Quality Control Board to
3 endorse natural attenuation, without further active remediation, and a reduction in the
4 frequency of monitoring from quarterly to annually, for a site where current levels of TCE
5 in groundwater are as high as 3,300 micrograms per liter (ug/l), and vinyl chloride
6 concentrations are as high as 1,900 ug/l. As set forth herein, these levels of contamination
7 are unacceptably high, and further investigation and remediation of the site are necessary.

8 Petitioners Levon Investments, LLC; Rose Marie Towle, as Trustee of the Rose
9 Marie Towle Revocable Trust; John L. Demourkas, as Trustee of the John L. Demourkas
10 Revocable Trust; John Ridell, as Trustee of the Christina Demourkas 2008 Trust;
11 Stephanie Marie Redding, as Trustee of the Stephanie Marie Redding 2008 Trust; Elisa
12 Ann Redding, as Trustee of the Elisa Ann Redding 2008 Trust; and Wells Fargo Bank, as
13 Trustee of the Jheri Elias Redding 1983 Irrevocable Trust (collectively, "Petitioners")¹
14 hereby petition the action taken by the Executive Officer of the Regional Water Quality
15 Control Board, Central Coast Region ("Regional Board") by letter dated May 13, 2011 (the
16 "May 13 Action"), whereby the Regional Board approved a revised Monitoring and
17 Reporting Program No. R3-2005-0143 and endorsed a "monitored attenuation approach"
18 to the remediation of contamination originating from the property located at 26 Coromar
19 Drive, Goleta, California (the "Renco Property"), which property is owned by Respondent
20 Renco Encoders, Inc. ("Renco"). A copy of the Regional Board's May 13, 2011 Action is
21 attached as Exhibit A to the Declaration of Emily L. Murray ("Murray Decl.") submitted
22 herewith.

23 Petitioners are the owners of property located at 147-165 Castilian Drive in Goleta,
24 California ("Petitioners' Property"), which is adjacent to and hydrogeologically
25 downgradient from the Renco Property. Contamination originating from the Renco
26 Property has impacted Petitioners' Property. As set forth in a letter dated June 10, 2011

27
28 ¹ Petitioners may be contacted through the address, telephone number, and email address
of counsel, provided on the caption of this petition.

1 from Petitioners' consultant, Padre Associates, Inc. ("Padre"), to the Regional Board,
2 concentrations of TCE and vinyl chloride remain very high on Petitioners' Property – much
3 higher than remaining concentrations on the Renco Property. (*See* Murray Decl., Ex. B.)
4 ~~It is Padre's opinion that the TCE and vinyl chloride contamination on Petitioners'~~
5 Property has not been effectively remediated, and that further investigation and
6 remediation of Petitioners' Property is necessary, even if not necessary for the Renco
7 Property. (*See id.*)

8 Upon information and belief, Renco and their consultant Arcadis U.S., Inc.
9 ("Arcadis"), formerly LFR/Levine Fricke, provided information regarding the current
10 status of remediation of the Renco Property and Petitioners' Property to the Regional
11 Board in a meeting on January 5, 2011 and by letter dated March 7, 2011. (*See* Murray
12 Decl., Ex. C, March 7, 2011 letter from Arcadis to the Regional Board, with enclosures.)
13 Petitioners were not invited to or made aware of the January 5, 2011 meeting, nor were
14 Petitioners provided with the March 7, 2011 letter until after the May 13 Action.

15 In apparent reliance on the information provided by Renco and Arcadis in the
16 January 5, 2011 meeting and March 7, 2011 letter, the Regional Board sent a letter to
17 Arcadis dated May 13, 2011, which purported to "confirm[] our ... agreement to revise
18 existing Monitoring and Reporting Program No. R3-2005-0143 (MRP)." (*See* Murray
19 Decl., Ex. A.) The approved revisions to Monitoring and Reporting Program No. R3-
20 2005-0143 include reduced frequency of monitoring (quarterly to annually) and removal of
21 some monitoring wells. The Regional Board's May 13, 2011 letter further stated that
22 "[d]ecreasing water concentrations and the success of the source zone remediation support
23 ... a monitored attenuation approach." (*See id.*)

24 As set forth herein, Petitioners allege that Arcadis – who on information and belief
25 has a financial stake in obtaining "closure" of the Renco Property from the Regional Board
26 – failed to clearly present to the Regional Board relevant information regarding the current
27 status of contamination on Petitioners' Property. In fact, TCE and vinyl chloride
28 contamination levels remain high, and in the case of vinyl chloride are rising, on

1 Petitioners' Property, suggesting the need not only for monitoring to continue on
2 Petitioners' Property at a quarterly rate, but also for additional investigation and
3 remediation on Petitioners' Property. (See Murray Decl., Ex. B.) Therefore, the Regional
4 Board's May 13 Action was inappropriate and improper, and Petitioners are aggrieved,
5 because the May 13 Action supports reduced monitoring and endorses a remediation
6 method that is insufficient to remediate Petitioners' Property. (See *id.*)

7 Petitioners therefore request, pursuant to Water Code section 13320 and California
8 Code of Regulations, Title 23, section 2050 *et seq.*, that the State Water Resources Control
9 Board ("State Board") direct the Regional Board to revise its May 13 Action as follows:

- 10 (1) At least for Petitioners' Property, reinstate the frequency of monitoring in the
11 prior version of Monitoring and Reporting Program No. R3-2005-0143;
- 12 (2) Order Renco and Arcadis to evaluate and quantify the potential for vapor
13 intrusion into the buildings located on Petitioners' Property; and
- 14 (3) Order Renco and Arcadis to conduct additional remediation, including
15 further substrate injections, on Petitioners' Property until the TCE and vinyl
16 chloride concentrations on Petitioners' Property are reduced to concentrations
17 at or below those currently observed on the Renco Property.

18 This Petition is being served upon the Regional Board, counsel for Renco, and
19 Arcadis simultaneously with service upon the State Board. While all of the information
20 contained in this Petition has previously been provided to the Regional Board, Petitioners
21 did not have an opportunity to raise these concerns before the Regional Board prior to the
22 May 13 Action because Petitioners were not included in the prior communications between
23 Arcadis and the Regional Board, and Petitioners were not made aware that the May 13
24 Action would be forthcoming.

25 Petitioners request a hearing before the State Board to present the arguments
26 contained herein and evidence submitted herewith. Petitioners were not provided with an
27 opportunity for such a hearing before the Regional Board prior to the May 13 Action.

28

1 **II. FACTUAL BACKGROUND.**

2 **A. Renco's Contaminated Property and Contract with LFR/Arcadis.**

3 Since 1972, a variety of electronics manufacturing business have operated on the
4 Renco Property. Chlorinated solvents were used during these operations, and their
5 disposal resulted in a release of chlorinated solvents to the soil and groundwater
6 underneath the Renco Property. Remediation efforts at the Renco Property and adjacent
7 properties have been ongoing since 1992. (See Murray Decl., Ex. D, Investec Properties
8 Assessment Report and Remedial Action Plan and Substrate Injection Workplan for the
9 Renco Encoders Site, June 29, 2009 ("2009 RAP").)

10 Upon information and belief, Renco and LFR (predecessor to Arcadis) entered into
11 a Guaranteed Environmental Remediation Agreement or the equivalent, whereby LFR
12 agreed – for a fixed price – to remediate the Renco Property to closure. In other words,
13 LFR "stepped into the shoes" of Renco from the perspective of paying for the cleanup and
14 acting as a "responsible party". Upon information and belief, LFR was subsequently
15 acquired by Arcadis, and Arcadis and LFR therefore had and have a substantial personal
16 financial stake in obtaining closure of the Renco Property at the lowest possible cost.

17 **B. Renco Contaminated Petitioners' Property.**

18 The Renco Property is located upgradient from Petitioners' Property, and
19 groundwater moves from the Renco Property toward Petitioners' Property under normal
20 conditions. Thus, as a result of Renco's release of chlorinated solvents into the soil and
21 groundwater beneath the Renco Property, the contaminants migrated from the Renco
22 Property to Petitioners' Property, contaminating both the soil and the groundwater beneath
23 Petitioners' Property with TCE and other chlorinated solvents. (See, e.g., Murray Decl.,
24 Ex. B.)

25 In 2006, the Regional Board directed Renco to investigate the extent of
26 contamination in the soil and groundwater at Petitioners' Property. Renco's investigation
27 revealed elevated levels of PCE and other chlorinated solvents at Petitioners' Property.
28 Thereafter, LFR falsely asserted the existence of a "second source" on Petitioners'

1 Property, contributing to the contamination. Consequently, the Regional Board ordered
2 Petitioners to investigate the source of the contamination at Petitioners' Property.
3 Following that investigation, on August 27, 2008, the Regional Board concluded that
4 ~~historic operations on Petitioners' Property were not a source of the contamination on~~
5 ~~Petitioners' Property. (See Murray Decl., Ex. E, Regional Board August 27, 2008 Order.)~~
6 The Regional Board thereafter admonished LFR/Arcadis for repeatedly attempting to
7 reassert their "second source" argument. (See, e.g., Murray Decl., Ex. F, Regional Board
8 response to 2009 RAP)

9 **C. The Regional Board Ordered Renco and Arcadis to Remediate**
10 **Petitioners' Property.**

11 On August 27, 2008, the Regional Board directed Renco to prepare a corrective
12 action work plan to investigate and remediate the contamination on both the Renco
13 Property and Petitioners' Property. (See Murray Decl., Ex. E.) The result was the 2009
14 RAP. (See Murray Decl., Exs. D, F.) The stated purpose of the 2009 RAP was "to
15 effectively remediate non-source TCE areas" on the Petitioners' Property. (See Murray
16 Decl., Ex. D 2009 RAP, Section 6.0) The 2009 RAP proposed to accomplish this
17 remediation through enhanced reductive dechlorination remediation injections: "[T]he
18 proposed substrate injections described [in the RAP] are both appropriately targeted and
19 sufficient in mass" to achieve that objective. (*Id.*) Arcadis anticipated "similar results in
20 successfully reducing [chlorinated volatile organic compounds ("CVOCs")] concentrations
21 in similar timeframes on [Petitioners' Property] as were observed on the Renco site." (*Id.*
22 at Section 6.3.3.)

23 The 2009 RAP proposed groundwater monitoring following the injections, the
24 results of which "will be used to verify the onset of complete reductive dechlorination of
25 TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and
26 vinyl chloride [VC] to ethane and ethane." (*Id.* at Section 7.0.) The results of the
27 monitoring were to "be used to confirm development of a sufficiently anaerobic
28 environment with an acceptable range of pH to support optimal dechlorination." (*Id.*) The

1 2009 RAP further stated that following the injections in October through November 2010,
2 Arcadis "will report on the need for and feasibility of conducting any additional
3 injections." (*Id.* at Section 8.0.)

4 ~~Renco and Arcadis proceeded to implement the 2009 RAP. Historically, Arcadis~~
5 has conducted enhanced reductive dechlorination remediation injections at the Renco
6 Property in at least four separate injection sequences (September 2001; September 2001-
7 April 2003; July-August 2006; and October-November 2010). (*See* Murray Decl., Ex. B.)
8 However, in implementing the 2009 RAP, Arcadis conducted only one enhanced reductive
9 dechlorination remediation injection sequence on Petitioners' Property (October-November
10 2010). (*See id.*)

11 **D. 2010 Fourth Quarter Results Show Elevated Levels of Contamination**
12 **Remain on Petitioners' Property.**

13 As ordered by the Regional Board, Renco and Arcadis monitored the results of
14 implementation of the 2009 RAP. Most recently, on December 14, 2010, Arcadis
15 submitted to the Regional Board the document titled 2010 Fourth Quarter Groundwater
16 Monitoring Report, Renco Encoders Site, 26 Coromar Drive, Goleta, California ("2010
17 Fourth Quarter QMR"). (*See* Murray Decl., Ex. G, 2010 Fourth Quarter QMR.) This
18 document demonstrated that, while remediation efforts have resulted in improved
19 conditions on the Renco Property, contamination levels on Petitioners' Property remain
20 unacceptably high. (*See* Murray Decl., Ex. B.)

21 Specifically, as of November 2010, significantly elevated TCE concentrations in
22 groundwater remain on Petitioners' Property at the locations of groundwater monitoring
23 well MW-16 (3,300 ug/l), MW-11 (750 ug/l), MW-13 (430 ug/l), MW-14 (230 ug/l), MW-
24 15 (160 ug/l), and MW-17 (140 ug/l). (*See* Murray Decl., Exs. B, G.) All of these
25 concentrations are well above the Regional Board's applicable remedial action
26 concentrations and therefore require further active remedial efforts. (*See* Murray Decl.,
27 Ex. B.)

28

1 In addition, the remediation activities have not resulted in the complete degradation
2 of TCE, which in turn has resulted in elevated concentrations of vinyl chloride at
3 Petitioners' Property. Vinyl chloride concentrations have in fact increased significantly at
4 the locations of several wells: MW-11 (from 370 to 1,900 ug/l); MW-16 (from 7.9 to 46
5 ug/l); and MW-17 (from 0.79 to 110 ug/l). (See Murray Decl., Exs. B, G.) These wells all
6 are located outside the southeast corner of the building located at 147-153 Castilian Drive
7 on Petitioners' Property. The extent of increased vinyl chloride concentration underlying
8 the building and maximum concentrations are currently unknown at this area of
9 Petitioners' Property. (See Murray Decl., Ex. B.)

10 Thus, the 2010 Fourth Quarter QMR demonstrates that (1) TCE concentrations in
11 groundwater on Petitioners' Property remain unacceptably high – in one case 3,300
12 micrograms per liter (ug/l); and (2) concentrations of vinyl chloride are presently as high
13 as 1,900 ug/l and are on the rise, as a result of TCE degradation, with unknown
14 concentrations in some areas.

15 **E. Arcadis' Misleading Communications with the Regional Board in**
16 **January and March 2011.**

17 Despite the data described above, contained in their own 2010 Fourth Quarter
18 QMR, Arcadis sought in the early part of 2011 to convince the Regional Board that
19 remediation efforts are complete, no further active remediation is necessary, and reduced
20 monitoring is acceptable. Arcadis did so by focusing on the improved conditions on the
21 Renco Property and burying the information regarding the alarming conditions on
22 Petitioners' Property. Arcadis met with the Regional Board in a meeting on January 5,
23 2011 and sent a follow-up letter on March 7, 2011. (See Murray Decl., Ex. C.) Tellingly,
24 Arcadis did not invite Petitioners to the January 5, 2011 meeting, nor copy them on the
25 March 7, 2011 letter until after the May 13 Action.

26 Specifically, Arcadis' March 7, 2009 letter states that: "Remediation of the original
27 area of release at the Renco Site is essentially complete. The source area of the Renco site
28 has been effectively remediated". (See Murray Decl., Ex. C, emphasis added.) However,

1 no such conclusions are offered with regard to Petitioners' Property (also referred to as the
2 Investec property). Instead, Arcadis obliquely suggests that it was not able to achieve
3 lower concentrations on Petitioners' Property due to "access issues":

4 ~~Treatment was conducted in accordance with the work plan~~
5 approved by the RWQCB staff, but access issues related to buildings
6 and public right-of-ways limit the ability to directly achieve lower
concentrations in those areas through the approved active remedial
technology (i.e., direct injection).

7 (See Murray Decl., Ex. C.) Likewise, Arcadis acknowledges that "... less is known
8 regarding the vapor pathway [from the underlying groundwater] on [Petitioners'
9 Property]." (See *id.*)

10 Arcadis' March 7, 2009 letter is perhaps more notable for what it does not state:

- 11 • It does not state that Petitioners' Property has been effectively
12 remediated;
- 13 • It does not report that the CVOC concentrations on Petitioners' Property
14 have been reduced to the levels observed on the Renco Property;
- 15 • It does not evaluate the potential vapor intrusion issues that could result
16 from the increased vinyl chloride levels on Petitioners' Property;
- 17 • It does not state that Renco has achieved complete reductive
18 dechlorination of TCE or that optimal dechlorination has been achieved
19 on Petitioners' Property; and
- 20 • It does not report on the need for and feasibility of conducting any
21 additional injections required to achieve effective remediation.

22 Nevertheless, despite these omissions, and despite the data in the 2010 Fourth
23 Quarter QMR, the Arcadis' March 7, 2009 letter concludes that (1) "[n]atural attenuation
24 ... will address residual concentrations to achieve water quality objectives over a
25 reasonable timeframe, which may span a decade or more"; (2) "no further remedial action
26 (i.e., no substrate injection) is required based upon current data"; and (3) a reduced
27 monitoring program is appropriate. (See *id.*)

28

1 **F. The Regional Board's May 13 Action.**

2 In apparent reliance on the information provided by Renco and Arcadis in Arcadis'
3 March 7, 2009 letter, the Regional Board sent a letter to Arcadis dated May 13, 2011,
4 ~~which purported to "confirm[] our ... agreement to revise existing Monitoring and~~
5 ~~Reporting Program No. R3-2005-0143 (MRP)."~~ (See Murray Decl., Ex. A.) The approved
6 revisions to Monitoring and Reporting Program No. R3-2005-0143 included reduced
7 frequency of monitoring (quarterly to annually) and removal of some monitoring wells.
8 The Regional Board's May 13, 2011 letter further stated that "[d]ecreasing water
9 concentrations and the success of the source zone remediation support ... a monitored
10 attenuation approach." (See *id.*) In short, the Regional Board appears to have agreed with
11 Renco and Arcadis that monitored natural attenuation is appropriate, no further active
12 remediation is necessary, and reduced monitoring is acceptable. For the reasons set forth
13 herein, this May 13 Action was inappropriate and improper.

14 **III. ARGUMENT.**

15 **A. Standard for State Board Petition.**

16 Any person who is aggrieved by an action, or a failure to act, by a Regional Water
17 Quality Control Board may file a petition for review with the State Board. (See Water
18 Code § 13320; 23 Cal. Code Regs. §§ 2050-2068.)² Subject to petition are "any action or
19 failure to act by a regional board under subdivision (c) of Section 13225, Article 4
20 (commencing with Section 13260) of Chapter 4, Chapter 5 (commencing with Section
21 13300), Chapter 5.5 (commencing with Section 13370), Chapter 5.9 (commencing with
22 Section 13399.25), or Chapter 7 (commencing with Section 13500)...." (Water Code
23 § 13320.) Here, the May 13 Action of the Regional Board was taken pursuant to, *inter*
24 *alia*, Water Code section 13267. (See Murray Decl., Ex. A.)

25
26
27 ² Petitions must be brought within 30 days; here, the Regional Board action was taken on
28 May 13, 2011; the petition was served by email without exhibits on Friday, June 10,
2011, and by overnight mail with exhibits for delivery on Monday, June 13, 2011. (See
23 Cal. Code Regs. § 2050(b).)

1 A petition must provide a "full and complete statement of the reasons the action or
2 failure to act was inappropriate or improper" and "[t]he manner in which the petitioner is
3 aggrieved." (23 Cal. Code Regs. § 2050(a).) The State Board may find that the action of
4 the Regional Board, or the failure of the Regional Board to act, was appropriate and
5 proper, or inappropriate or improper. (*See* Water Code § 13320(c) ; 23 Cal. Code Regs.
6 § 2052.) Upon finding that the action of the Regional Board, or the failure of the Regional
7 Board to act, was inappropriate or improper, the state board may direct that the appropriate
8 action be taken by the Regional Board, refer the matter to any other state agency having
9 jurisdiction, take the appropriate action itself, or take any combination of those actions.
10 (*See id.*) In taking any such action, the State Board is vested with all the powers of the
11 Regional Board. (*See id.*)

12 Before taking final action, the State Board may, in its discretion, hold a hearing for
13 the purpose of oral argument or receipt of additional evidence or both. (23 Cal. Code
14 Regs. § 2052.)

15 **B. The May 13 Action was Inappropriate and Improper.**

16 The May 13 Action by the Regional Board was inappropriate and improper because
17 the objectives of the 2009 RAP have not been achieved and because significantly elevated
18 concentrations of TCE and vinyl chloride remain on Petitioner's Property. Further
19 investigation and active remediation is indicated and necessary. The Regional Board's
20 apparent agreement that active remediation is not required is not consistent with the
21 current status of Petitioners' Property nor the Regional Board's mandate to protect water
22 quality. (*See* Water Code § 13000.)

23 **1. The Objectives of the 2009 RAP Have Not Been Achieved.**

24 The 2010 Fourth Quarter QMR demonstrates that the objectives of the 2009 RAP
25 have not been met for Petitioners' Property.

26 First, the stated purpose of the 2009 RAP was "to effectively remediate non-source
27 TCE areas" on the Petitioners' Property. (*See* Murray Decl., Ex. D 2009 RAP, Section
28 6.0). The purpose of the RAP has not been achieved because the TCE on Petitioners'

1 Property has not been effectively remediated. Although the active remediation activities
2 completed at the source area of the Renco Property over the past 20 years have apparently
3 been successful in significantly reducing concentration of chlorinated hydrocarbons in soil
4 and groundwater located at the Renco Property, these remediation efforts have not reduced
5 TCE concentrations in groundwater to generally accepted remediation requirements on
6 Petitioners' Property. (See Murray Decl., Ex. B.)

7 Second, the 2009 RAP anticipated “similar results in successfully reducing CVOC
8 concentrations in similar timeframes on [Petitioners' Property] as were observed on the
9 Renco site.” (See Murray Decl., Ex. D 2009 RAP, Section 6.3.3.) This has not occurred.
10 Arcadis conducted enhanced reductive dechlorination remediation injections at the Renco
11 Property in at least four separate injection sequences. (See Murray Decl., Ex. B.) Arcadis
12 conducted only one enhanced reductive dechlorination remediation injection sequence on
13 Petitioners' Property. (See *id.*) As a result, Arcadis has achieved substantially reduced
14 TCE and vinyl chloride concentrations in groundwater at the Renco Property as compared
15 to those at Petitioners' Property. TCE and vinyl chloride concentrations at Petitioners'
16 Property are much higher than the concentrations that reportedly remain at the Renco
17 Property as the result of the increased active remediation efforts Renco has made on its
18 property. (See *id.*)

19 Third, the 2009 RAP proposed groundwater monitoring following the injections, the
20 results of which “will be used to verify the onset of complete reductive dechlorination of
21 TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and
22 vinyl chloride [VC] to ethane and ethane.” (*Id.* at Section 7.0.) The results of the
23 monitoring were also to “be used to confirm development of a sufficiently anaerobic
24 environment with an acceptable range of pH to support optimal dechlorination.” (*Id.*)
25 Renco and Arcadis have not verified the onset of complete reductive dechlorination of
26 TCE on the Petitioners' Property, and optimal dechlorination has not been achieved. (See
27 Murray Decl., Ex. B.) In fact, the remediation undertaken by Renco has significantly

28

1 increased the risk of vinyl chloride vapor intrusion into buildings on Petitioners' Property.
2 (*See id.*)

3 Finally, the 2009 RAP further stated that following the injections in October
4 through November 2010, Arcadis "will report on the need for and feasibility of conducting
5 any additional injections." (*Id.* at Section 8.0.) (*See* Murray Decl., Ex. B.) Arcadis'
6 March 7, 2009 letter takes the position that "no further remedial action (i.e., no substrate
7 injection) is required based upon current data". (Murray Decl., Ex. C.) This is asserted
8 even though Arcadis itself states that existing elevated concentrations "are not expected to
9 diminish significantly in the near future (years)" and in fact it may take "a decade or
10 more". (*Id.*) Thus, Arcadis concedes that, without further active remediation,
11 concentrations of TCE and vinyl chloride will likely remain elevated on Petitioners'
12 Properties. (*See id.*)

13 This is not acceptable; monitored natural attenuation is not appropriate for
14 Petitioners' Property at this time. Although monitored natural attenuation may be
15 appropriate for the Renco Property source area, where several episodes of active
16 groundwater remediation have historically been completed, a monitored natural attenuation
17 remediation approach at Petitioners' Property will not result in the required reduction of
18 chlorinated hydrocarbons-containing groundwater in a reasonable amount of time;
19 "decades" is not reasonable. (*See* Murray Decl., Ex. B.)

20 **2. Further Investigation and Remediation are Necessary for**
21 **Petitioners' Property.**

22 The Regional Board acted prematurely in concurring with Renco and Arcadis to
23 transition this groundwater remediation project from one requiring active remediation to a
24 monitored attenuation approach, at least with respect to Petitioners' Property. Based on the
25 elevated TCE concentrations in groundwater at Petitioners' Property, natural attenuation of
26 TCE-containing groundwater is not an acceptable remedial approach. (*See* Murray Decl.,
27 Ex. B.) Overall, the data indicate that reductive dechlorination is occurring in the area, but
28 is incomplete. (*See id.*)

1 Therefore, additional injections on Petitioners' Property are necessary to accelerate
2 the rate of reductive dechlorination in order to achieve – at a minimum – levels on
3 Petitioners' Property that are comparable to those currently existing on the Renco Property
4 within a reasonable timeframe. Related to this additional active remediation, quarterly
5 sampling should be continued, at least on Petitioners' Property, to ensure that the injections
6 are working and that remediation is proceeding apace.

7 Finally, the rising levels of vinyl chloride on Petitioners' Property indicate the
8 immediate need for Renco and Arcadis to evaluate and quantify the potential for vapor
9 intrusion into the buildings located on Petitioners' Property. Without such investigation,
10 there is the potential for adverse human health effects, which has not been adequately
11 characterized or addressed.

12 **3. The Regional Board's May 13 Action Fails to Protect Water**
13 **Quality.**

14 Pursuant to Water Code section 13000:

15 ... [T]he people of the state have a primary interest in the
16 conservation, control, and utilization of the water resources of
17 the state, and that the quality of all the waters of the state shall
18 be protected for use and enjoyment by the people of the state.

19 ... [A]ctivities and factors which may affect the quality of the
20 waters of the state shall be regulated to attain the highest water
21 quality which is reasonable, considering all demands being
22 made and to be made on those waters and the total values
23 involved, beneficial and detrimental, economic and social,
24 tangible and intangible.

25 Water Code section 13001 makes the coordination and control of water quality the
26 primary responsibility of the State Board and each Regional Board. Here, the failure of the
27 Regional Board to direct further active remediation and investigation and its apparent
28 concurrence in the May 13 Action with Arcadis' position that remediation is complete and
monitored natural attenuation is recommended, is directly at odds with the current data and
the Regional Board's mandate to protect water quality. (*See id.*) Accordingly, the May 13
Action was improper and inappropriate.

1 IV. CONCLUSION.

2 The Regional Board's May 13 Action was inappropriate and improper because it
3 supports reduced monitoring and endorses a remediation method that is insufficient to
4 ~~remediate Petitioners' Property. Petitioners respectfully request, pursuant to Water Code~~
5 section 13320 and California Code of Regulations, Title 23, section 2050 *et seq.*, that the
6 State Board direct the Regional Board to:

- 7 (1) For Petitioners' Property, reinstate the frequency of monitoring in the prior
8 version of Monitoring and Reporting Program No. R3-2005-0143;
- 9 (2) Order Renco and Arcadis to evaluate and quantify the potential for vapor
10 intrusion into the buildings located on Petitioners' Property; and
- 11 (3) Order Renco and Arcadis to conduct additional remediation, including
12 further substrate injections, on Petitioners' Property until the TCE and vinyl
13 chloride concentrations on Petitioners' Property are reduced to concentrations
14 at or below those observed on the Renco Property.

15 Petitioners further request a hearing before the State Board to present the arguments
16 contained herein and evidence attached hereto. Petitioners were not provided with an
17 opportunity for such a hearing before the Regional Board prior to the May 13 Action.

18 Dated: June 10, 2011

ALLEN MATKINS LECK GAMBLE
MALLORY & NATSIS LLP
SCOTT J. LEIPZIG
EMILY L. MURRAY

21 By: /s/ Emily L. Murray

22 EMILY L. MURRAY
23 Attorneys for Petitioners
24
25
26
27
28

1 SCOTT J. LEIPZIG (BAR NO. 192005)
EMILY L. MURRAY (BAR NO. 223815)
2 ALLEN MATKINS LECK GAMBLE
MALLORY & NATSIS LLP
3 515 South Figueroa Street, Ninth Floor
Los Angeles, California 90071-3309
4 Phone: (213) 622-5555
Fax: (213) 620-8816
5 E-Mail: sleipzig@allenmatkins.com
E-Mail: emurray@allenmatkins.com



6 Attorneys for Petitioners

7 **BEFORE THE CALIFORNIA**

8 **STATE WATER RESOURCES CONTROL BOARD**

9
10 LEVON INVESTMENTS, LLC; ROSE
MARIE TOWLE, AS TRUSTEE OF THE
11 ROSE MARIE TOWLE REVOCABLE
TRUST; JOHN L. DEMOURKAS, AS
12 TRUSTEE OF THE JOHN L.
DEMOURKAS REVOCABLE TRUST;
13 JOHN RIDELL, AS TRUSTEE OF THE
CHRISTINA DEMOURKAS 2008 TRUST;
14 STEPHANIE MARIE REDDING, AS
TRUSTEE OF THE STEPHANIE MARIE
15 REDDING 2008 TRUST; ELISA ANN
REDDING, AS TRUSTEE OF THE ELISA
16 ANN REDDING 2008 TRUST; and
WELLS FARGO BANK, AS TRUSTEE
17 OF THE JHERI ELIAS REDDING 1983
IRREVOCABLE TRUST,

**PETITION CHALLENGING MAY 13,
2011 REGIONAL WATER QUALITY
CONTROL BOARD, CENTRAL COAST
REGION APPROVAL OF REVISIONS
TO MONITORING AND REPORTING
PROGRAM NO. R3-2005-0143 AND
ENDORSEMENT OF MONITORED
ATTENUATION**

18 Petitioners,

19 v.

20 REGIONAL WATER QUALITY
21 CONTROL BOARD, CENTRAL COAST
REGION,

22 Respondent,

23 RENCO ENCODERS, INC. and ARCADIS
24 U.S., INC.,

25 Real Parties in Interest.
26
27
28

TABLE OF CONTENTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

	<u>Page</u>
I. INTRODUCTION.....	1
II. FACTUAL BACKGROUND.....	4
A. Renco's Contaminated Property and Contract with LFR/Arcadis	4
B. Renco Contaminated Petitioners' Property	4
C. The Regional Board Ordered Renco and Arcadis to Remediate Petitioners' Property	5
D. 2010 Fourth Quarter Results Show Elevated Levels of Contamination Remain on Petitioners' Property	6
E. Arcadis' Misleading Communications with the Regional Board in January and March 2011	7
F. The Regional Board's May 13 Action.....	9
III. ARGUMENT	9
A. Standard for State Board Petition.....	9
B. The May 13 Action was Inappropriate and Improper.....	10
1. The Objectives of the 2009 RAP Have Not Been Achieved	10
2. Further Investigation and Remediation are Necessary for Petitioners' Property	12
3. The Regional Board's May 13 Action Fails to Protect Water Quality	13
IV. CONCLUSION	14

TABLE OF AUTHORITIES

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

Page(s)

Statutes

Cal. Water Code § 13000 10, 13
Cal. Water Code § 13001 13
Cal. Water Code § 13267 9
Cal. Water Code § 13300 9
Cal. Water Code § 13320 3, 9, 14
Cal. Water Code § 13320(c)..... 10

Regulations

23 Cal. Code Regs. § 2050 3, 14
23 Cal. Code Regs. § 2050(a)..... 10
23 Cal. Code Regs. § 2050(b) 9
23 Cal. Code Regs. § 2052 10
23 Cal. Code Regs. §§ 2050-2068..... 9

1 **I. INTRODUCTION.**

2 This Petition is from a decision by a Regional Water Quality Control Board to
3 endorse natural attenuation, without further active remediation, and a reduction in the
4 frequency of monitoring from quarterly to annually, for a site where current levels of TCE
5 in groundwater are as high as 3,300 micrograms per liter (ug/l), and vinyl chloride
6 concentrations are as high as 1,900 ug/l. As set forth herein, these levels of contamination
7 are unacceptably high, and further investigation and remediation of the site are necessary.

8 Petitioners Levon Investments, LLC; Rose Marie Towle, as Trustee of the Rose
9 Marie Towle Revocable Trust; John L. Demourkas, as Trustee of the John L. Demourkas
10 Revocable Trust; John Ridell, as Trustee of the Christina Demourkas 2008 Trust;
11 Stephanie Marie Redding, as Trustee of the Stephanie Marie Redding 2008 Trust; Elisa
12 Ann Redding, as Trustee of the Elisa Ann Redding 2008 Trust; and Wells Fargo Bank, as
13 Trustee of the Jheri Elias Redding 1983 Irrevocable Trust (collectively, "Petitioners")¹
14 hereby petition the action taken by the Executive Officer of the Regional Water Quality
15 Control Board, Central Coast Region ("Regional Board") by letter dated May 13, 2011 (the
16 "May 13 Action"), whereby the Regional Board approved a revised Monitoring and
17 Reporting Program No. R3-2005-0143 and endorsed a "monitored attenuation approach"
18 to the remediation of contamination originating from the property located at 26 Coromar
19 Drive, Goleta, California (the "Renco Property"), which property is owned by Respondent
20 Renco Encoders, Inc. ("Renco"). A copy of the Regional Board's May 13, 2011 Action is
21 attached as Exhibit A to the Declaration of Emily L. Murray ("Murray Decl.") submitted
22 herewith.

23 Petitioners are the owners of property located at 147-165 Castilian Drive in Goleta,
24 California ("Petitioners' Property"), which is adjacent to and hydrogeologically
25 downgradient from the Renco Property. Contamination originating from the Renco
26 Property has impacted Petitioners' Property. As set forth in a letter dated June 10, 2011

27

28 ¹ Petitioners may be contacted through the address, telephone number, and email address
of counsel, provided on the caption of this petition.

1 from Petitioners' consultant, Padre Associates, Inc. ("Padre"), to the Regional Board,
2 concentrations of TCE and vinyl chloride remain very high on Petitioners' Property – much
3 higher than remaining concentrations on the Renco Property. (See Murray Decl., Ex. B.)
4 It is Padre's opinion that the TCE and vinyl chloride contamination on Petitioners'
5 Property has not been effectively remediated, and that further investigation and
6 remediation of Petitioners' Property is necessary, even if not necessary for the Renco
7 Property. (See *id.*)

8 Upon information and belief, Renco and their consultant Arcadis U.S., Inc.
9 ("Arcadis"), formerly LFR/Levine Fricke, provided information regarding the current
10 status of remediation of the Renco Property and Petitioners' Property to the Regional
11 Board in a meeting on January 5, 2011 and by letter dated March 7, 2011. (See Murray
12 Decl., Ex. C, March 7, 2011 letter from Arcadis to the Regional Board, with enclosures.)
13 Petitioners were not invited to or made aware of the January 5, 2011 meeting, nor were
14 Petitioners provided with the March 7, 2011 letter until after the May 13 Action.

15 In apparent reliance on the information provided by Renco and Arcadis in the
16 January 5, 2011 meeting and March 7, 2011 letter, the Regional Board sent a letter to
17 Arcadis dated May 13, 2011, which purported to "confirm[] our ... agreement to revise
18 existing Monitoring and Reporting Program No. R3-2005-0143 (MRP)." (See Murray
19 Decl., Ex. A.) The approved revisions to Monitoring and Reporting Program No. R3-
20 2005-0143 include reduced frequency of monitoring (quarterly to annually) and removal of
21 some monitoring wells. The Regional Board's May 13, 2011 letter further stated that
22 "[d]ecreasing water concentrations and the success of the source zone remediation support
23 ... a monitored attenuation approach." (See *id.*)

24 As set forth herein, Petitioners allege that Arcadis – who on information and belief
25 has a financial stake in obtaining "closure" of the Renco Property from the Regional Board
26 – failed to clearly present to the Regional Board relevant information regarding the current
27 status of contamination on Petitioners' Property. In fact, TCE and vinyl chloride
28 contamination levels remain high, and in the case of vinyl chloride are rising, on

1 Petitioners' Property, suggesting the need not only for monitoring to continue on
2 Petitioners' Property at a quarterly rate, but also for additional investigation and
3 remediation on Petitioners' Property. (See Murray Decl., Ex. B.) Therefore, the Regional
4 Board's May 13 Action was inappropriate and improper, and Petitioners are aggrieved,
5 because the May 13 Action supports reduced monitoring and endorses a remediation
6 method that is insufficient to remediate Petitioners' Property. (See *id.*)

7 Petitioners therefore request, pursuant to Water Code section 13320 and California
8 Code of Regulations, Title 23, section 2050 *et seq.*, that the State Water Resources Control
9 Board ("State Board") direct the Regional Board to revise its May 13 Action as follows:

- 10 (1) At least for Petitioners' Property, reinstate the frequency of monitoring in the
11 prior version of Monitoring and Reporting Program No. R3-2005-0143;
- 12 (2) Order Renco and Arcadis to evaluate and quantify the potential for vapor
13 intrusion into the buildings located on Petitioners' Property; and
- 14 (3) Order Renco and Arcadis to conduct additional remediation, including
15 further substrate injections, on Petitioners' Property until the TCE and vinyl
16 chloride concentrations on Petitioners' Property are reduced to concentrations
17 at or below those currently observed on the Renco Property.

18 This Petition is being served upon the Regional Board, counsel for Renco, and
19 Arcadis simultaneously with service upon the State Board. While all of the information
20 contained in this Petition has previously been provided to the Regional Board, Petitioners
21 did not have an opportunity to raise these concerns before the Regional Board prior to the
22 May 13 Action because Petitioners were not included in the prior communications between
23 Arcadis and the Regional Board, and Petitioners were not made aware that the May 13
24 Action would be forthcoming.

25 Petitioners request a hearing before the State Board to present the arguments
26 contained herein and evidence submitted herewith. Petitioners were not provided with an
27 opportunity for such a hearing before the Regional Board prior to the May 13 Action.
28

1 **II. FACTUAL BACKGROUND.**

2 **A. Renco's Contaminated Property and Contract with LFR/Arcadis.**

3 Since 1972, a variety of electronics manufacturing business have operated on the
4 Renco Property. Chlorinated solvents were used during these operations, and their
5 disposal resulted in a release of chlorinated solvents to the soil and groundwater
6 underneath the Renco Property. Remediation efforts at the Renco Property and adjacent
7 properties have been ongoing since 1992. (*See* Murray Decl., Ex. D, Investec Properties
8 Assessment Report and Remedial Action Plan and Substrate Injection Workplan for the
9 Renco Encoders Site, June 29, 2009 ("2009 RAP").)

10 Upon information and belief, Renco and LFR (predecessor to Arcadis) entered into
11 a Guaranteed Environmental Remediation Agreement or the equivalent, whereby LFR
12 agreed – for a fixed price – to remediate the Renco Property to closure. In other words,
13 LFR "stepped into the shoes" of Renco from the perspective of paying for the cleanup and
14 acting as a "responsible party". Upon information and belief, LFR was subsequently
15 acquired by Arcadis, and Arcadis and LFR therefore had and have a substantial personal
16 financial stake in obtaining closure of the Renco Property at the lowest possible cost.

17 **B. Renco Contaminated Petitioners' Property.**

18 The Renco Property is located upgradient from Petitioners' Property, and
19 groundwater moves from the Renco Property toward Petitioners' Property under normal
20 conditions. Thus, as a result of Renco's release of chlorinated solvents into the soil and
21 groundwater beneath the Renco Property, the contaminants migrated from the Renco
22 Property to Petitioners' Property, contaminating both the soil and the groundwater beneath
23 Petitioners' Property with TCE and other chlorinated solvents. (*See, e.g.,* Murray Decl.,
24 Ex. B.)

25 In 2006, the Regional Board directed Renco to investigate the extent of
26 contamination in the soil and groundwater at Petitioners' Property. Renco's investigation
27 revealed elevated levels of PCE and other chlorinated solvents at Petitioners' Property.
28 Thereafter, LFR falsely asserted the existence of a "second source" on Petitioners'

1 Property, contributing to the contamination. Consequently, the Regional Board ordered
2 Petitioners to investigate the source of the contamination at Petitioners' Property.
3 Following that investigation, on August 27, 2008, the Regional Board concluded that
4 historic operations on Petitioners' Property were not a source of the contamination on
5 Petitioners' Property. (*See* Murray Decl., Ex. E, Regional Board August 27, 2008 Order.)
6 The Regional Board thereafter admonished LFR/Arcadis for repeatedly attempting to
7 reassert their "second source" argument. (*See, e.g.*, Murray Decl., Ex. F, Regional Board
8 response to 2009 RAP)

9 **C. The Regional Board Ordered Renco and Arcadis to Remediate**
10 **Petitioners' Property.**

11 On August 27, 2008, the Regional Board directed Renco to prepare a corrective
12 action work plan to investigate and remediate the contamination on both the Renco
13 Property and Petitioners' Property. (*See* Murray Decl., Ex. E.) The result was the 2009
14 RAP. (*See* Murray Decl., Exs. D, F.) The stated purpose of the 2009 RAP was "to
15 effectively remediate non-source TCE areas" on the Petitioners' Property. (*See* Murray
16 Decl., Ex. D 2009 RAP, Section 6.0) The 2009 RAP proposed to accomplish this
17 remediation through enhanced reductive dechlorination remediation injections: "[T]he
18 proposed substrate injections described [in the RAP] are both appropriately targeted and
19 sufficient in mass" to achieve that objective. (*Id.*) Arcadis anticipated "similar results in
20 successfully reducing [chlorinated volatile organic compounds ("CVOCs")] concentrations
21 in similar timeframes on [Petitioners' Property] as were observed on the Renco site." (*Id.*
22 at Section 6.3.3.)

23 The 2009 RAP proposed groundwater monitoring following the injections, the
24 results of which "will be used to verify the onset of complete reductive dechlorination of
25 TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and
26 vinyl chloride [VC] to ethane and ethane." (*Id.* at Section 7.0.) The results of the
27 monitoring were to "be used to confirm development of a sufficiently anaerobic
28 environment with an acceptable range of pH to support optimal dechlorination." (*Id.*) The

1 2009 RAP further stated that following the injections in October through November 2010,
2 Arcadis "will report on the need for and feasibility of conducting any additional
3 injections." (*Id.* at Section 8.0.)

4 Renco and Arcadis proceeded to implement the 2009 RAP. Historically, Arcadis
5 has conducted enhanced reductive dechlorination remediation injections at the Renco
6 Property in at least four separate injection sequences (September 2001; September 2001-
7 April 2003; July-August 2006; and October-November 2010). (*See* Murray Decl., Ex. B.)
8 However, in implementing the 2009 RAP, Arcadis conducted only one enhanced reductive
9 dechlorination remediation injection sequence on Petitioners' Property (October-November
10 2010). (*See id.*)

11 **D. 2010 Fourth Quarter Results Show Elevated Levels of Contamination**
12 **Remain on Petitioners' Property.**

13 As ordered by the Regional Board, Renco and Arcadis monitored the results of
14 implementation of the 2009 RAP. Most recently, on December 14, 2010, Arcadis
15 submitted to the Regional Board the document titled 2010 Fourth Quarter Groundwater
16 Monitoring Report, Renco Encoders Site, 26 Coromar Drive, Goleta, California ("2010
17 Fourth Quarter QMR"). (*See* Murray Decl., Ex. G, 2010 Fourth Quarter QMR.) This
18 document demonstrated that, while remediation efforts have resulted in improved
19 conditions on the Renco Property, contamination levels on Petitioners' Property remain
20 unacceptably high. (*See* Murray Decl., Ex. B.)

21 Specifically, as of November 2010, significantly elevated TCE concentrations in
22 groundwater remain on Petitioners' Property at the locations of groundwater monitoring
23 well MW-16 (3,300 ug/l), MW-11 (750 ug/l), MW-13 (430 ug/l), MW-14 (230 ug/l), MW-
24 15 (160 ug/l), and MW-17 (140 ug/l). (*See* Murray Decl., Exs. B, G.) All of these
25 concentrations are well above the Regional Board's applicable remedial action
26 concentrations and therefore require further active remedial efforts. (*See* Murray Decl.,
27 Ex. B.)

28

1 In addition, the remediation activities have not resulted in the complete degradation
2 of TCE, which in turn has resulted in elevated concentrations of vinyl chloride at
3 Petitioners' Property. Vinyl chloride concentrations have in fact increased significantly at
4 the locations of several wells: MW-11 (from 370 to 1,900 ug/l); MW-16 (from 7.9 to 46
5 ug/l); and MW-17 (from 0.79 to 110 ug/l). (~~See Murray Decl., Exs. B, G.~~) These wells all
6 are located outside the southeast corner of the building located at 147-153 Castilian Drive
7 on Petitioners' Property. The extent of increased vinyl chloride concentration underlying
8 the building and maximum concentrations are currently unknown at this area of
9 Petitioners' Property. (~~See Murray Decl., Ex. B.~~)

10 Thus, the 2010 Fourth Quarter QMR demonstrates that (1) TCE concentrations in
11 groundwater on Petitioners' Property remain unacceptably high – in one case 3,300
12 micrograms per liter (ug/l); and (2) concentrations of vinyl chloride are presently as high
13 as 1,900 ug/l and are on the rise, as a result of TCE degradation, with unknown
14 concentrations in some areas.

15 **E. Arcadis' Misleading Communications with the Regional Board in**
16 **January and March 2011.**

17 Despite the data described above, contained in their own 2010 Fourth Quarter
18 QMR, Arcadis sought in the early part of 2011 to convince the Regional Board that
19 remediation efforts are complete, no further active remediation is necessary, and reduced
20 monitoring is acceptable. Arcadis did so by focusing on the improved conditions on the
21 Renco Property and burying the information regarding the alarming conditions on
22 Petitioners' Property. Arcadis met with the Regional Board in a meeting on January 5,
23 2011 and sent a follow-up letter on March 7, 2011. (~~See Murray Decl., Ex. C.~~) Tellingly,
24 Arcadis did not invite Petitioners to the January 5, 2011 meeting, nor copy them on the
25 March 7, 2011 letter until after the May 13 Action.

26 Specifically, Arcadis' March 7, 2009 letter states that: "Remediation of the original
27 area of release at the Renco Site is essentially complete. The source area of the Renco site
28 has been effectively remediated". (~~See Murray Decl., Ex. C, emphasis added.~~) However,

1 no such conclusions are offered with regard to Petitioners' Property (also referred to as the
2 Investec property). Instead, Arcadis obliquely suggests that it was not able to achieve
3 lower concentrations on Petitioners' Property due to "access issues":

4 ~~Treatment was conducted in accordance with the work plan~~
5 ~~approved by the RWQCB staff, but access issues related to buildings~~
6 ~~and public right-of-ways limit the ability to directly achieve lower~~
7 ~~concentrations in those areas through the approved active remedial~~
8 ~~technology (i.e., direct injection).~~

9 (See Murray Decl., Ex. C.) Likewise, Arcadis acknowledges that "... less is known
10 regarding the vapor pathway [from the underlying groundwater] on [Petitioners'
11 Property]." (See *id.*)

12 Arcadis' March 7, 2009 letter is perhaps more notable for what it does not state:

- 13 • It does not state that Petitioners' Property has been effectively
14 remediated;
- 15 • It does not report that the CVOC concentrations on Petitioners' Property
16 have been reduced to the levels observed on the Renco Property;
- 17 • It does not evaluate the potential vapor intrusion issues that could result
18 from the increased vinyl chloride levels on Petitioners' Property;
- 19 • It does not state that Renco has achieved complete reductive
20 dechlorination of TCE or that optimal dechlorination has been achieved
21 on Petitioners' Property; and
- 22 • It does not report on the need for and feasibility of conducting any
23 additional injections required to achieve effective remediation.

24 Nevertheless, despite these omissions, and despite the data in the 2010 Fourth
25 Quarter QMR, the Arcadis' March 7, 2009 letter concludes that (1) "[n]atural attenuation
26 ... will address residual concentrations to achieve water quality objectives over a
27 reasonable timeframe, which may span a decade or more"; (2) "no further remedial action
28 (i.e., no substrate injection) is required based upon current data"; and (3) a reduced
29 monitoring program is appropriate. (See *id.*)

1 **F. The Regional Board's May 13 Action.**

2 In apparent reliance on the information provided by Renco and Arcadis in Arcadis'
3 March 7, 2009 letter, the Regional Board sent a letter to Arcadis dated May 13, 2011,
4 which purported to "confirm[] our ... agreement to revise existing Monitoring and
5 Reporting Program No. R3-2005-0143 (MRP)." (See Murray Decl., Ex. A.) The approved
6 revisions to Monitoring and Reporting Program No. R3-2005-0143 included reduced
7 frequency of monitoring (quarterly to annually) and removal of some monitoring wells.
8 The Regional Board's May 13, 2011 letter further stated that "[d]ecreasing water
9 concentrations and the success of the source zone remediation support ... a monitored
10 attenuation approach." (See *id.*) In short, the Regional Board appears to have agreed with
11 Renco and Arcadis that monitored natural attenuation is appropriate, no further active
12 remediation is necessary, and reduced monitoring is acceptable. For the reasons set forth
13 herein, this May 13 Action was inappropriate and improper.

14 **III. ARGUMENT.**

15 **A. Standard for State Board Petition.**

16 Any person who is aggrieved by an action, or a failure to act, by a Regional Water
17 Quality Control Board may file a petition for review with the State Board. (See Water
18 Code § 13320; 23 Cal. Code Regs. §§ 2050-2068.)² Subject to petition are "any action or
19 failure to act by a regional board under subdivision (c) of Section 13225, Article 4
20 (commencing with Section 13260) of Chapter 4, Chapter 5 (commencing with Section
21 13300), Chapter 5.5 (commencing with Section 13370), Chapter 5.9 (commencing with
22 Section 13399.25), or Chapter 7 (commencing with Section 13500)...." (Water Code
23 § 13320.) Here, the May 13 Action of the Regional Board was taken pursuant to, *inter*
24 *alia*, Water Code section 13267. (See Murray Decl., Ex. A.)

25
26
27 ² Petitions must be brought within 30 days; here, the Regional Board action was taken on
28 May 13, 2011; the petition was served by email without exhibits on Friday, June 10,
2011, and by overnight mail with exhibits for delivery on Monday, June 13, 2011. (See
23 Cal. Code Regs. § 2050(b).)

1 A petition must provide a "full and complete statement of the reasons the action or
2 failure to act was inappropriate or improper" and "[t]he manner in which the petitioner is
3 aggrieved." (23 Cal. Code Regs. § 2050(a).) The State Board may find that the action of
4 the Regional Board, or the failure of the Regional Board to act, was appropriate and
5 proper, or inappropriate or improper. (*See* Water Code § 13320(c) ; 23 Cal. Code Regs.
6 § 2052.) Upon finding that the action of the Regional Board, or the failure of the Regional
7 Board to act, was inappropriate or improper, the state board may direct that the appropriate
8 action be taken by the Regional Board, refer the matter to any other state agency having
9 jurisdiction, take the appropriate action itself, or take any combination of those actions.
10 (*See id.*) In taking any such action, the State Board is vested with all the powers of the
11 Regional Board. (*See id.*)

12 Before taking final action, the State Board may, in its discretion, hold a hearing for
13 the purpose of oral argument or receipt of additional evidence or both. (23 Cal. Code
14 Regs. § 2052.)

15 **B. The May 13 Action was Inappropriate and Improper.**

16 The May 13 Action by the Regional Board was inappropriate and improper because
17 the objectives of the 2009 RAP have not been achieved and because significantly elevated
18 concentrations of TCE and vinyl chloride remain on Petitioner's Property. Further
19 investigation and active remediation is indicated and necessary. The Regional Board's
20 apparent agreement that active remediation is not required is not consistent with the
21 current status of Petitioners' Property nor the Regional Board's mandate to protect water
22 quality. (*See* Water Code § 13000.)

23 **1. The Objectives of the 2009 RAP Have Not Been Achieved.**

24 The 2010 Fourth Quarter QMR demonstrates that the objectives of the 2009 RAP
25 have not been met for Petitioners' Property.

26 First, the stated purpose of the 2009 RAP was "to effectively remediate non-source
27 TCE areas" on the Petitioners' Property. (*See* Murray Decl., Ex. D 2009 RAP, Section
28 6.0). The purpose of the RAP has not been achieved because the TCE on Petitioners'

1 Property has not been effectively remediated. Although the active remediation activities
2 completed at the source area of the Renco Property over the past 20 years have apparently
3 been successful in significantly reducing concentration of chlorinated hydrocarbons in soil
4 and groundwater located at the Renco Property, these remediation efforts have not reduced
5 TCE concentrations in groundwater to generally accepted remediation requirements on
6 Petitioners' Property. (*See* Murray Decl., Ex. B.)

7 Second, the 2009 RAP anticipated "similar results in successfully reducing CVOC
8 concentrations in similar timeframes on [Petitioners' Property] as were observed on the
9 Renco site." (*See* Murray Decl., Ex. D 2009 RAP, Section 6.3.3.) This has not occurred.
10 Arcadis conducted enhanced reductive dechlorination remediation injections at the Renco
11 Property in at least four separate injection sequences. (*See* Murray Decl., Ex. B.) Arcadis
12 conducted only one enhanced reductive dechlorination remediation injection sequence on
13 Petitioners' Property. (*See id.*) As a result, Arcadis has achieved substantially reduced
14 TCE and vinyl chloride concentrations in groundwater at the Renco Property as compared
15 to those at Petitioners' Property. TCE and vinyl chloride concentrations at Petitioners'
16 Property are much higher than the concentrations that reportedly remain at the Renco
17 Property as the result of the increased active remediation efforts Renco has made on its
18 property. (*See id.*)

19 Third, the 2009 RAP proposed groundwater monitoring following the injections, the
20 results of which "will be used to verify the onset of complete reductive dechlorination of
21 TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and
22 vinyl chloride [VC] to ethane and ethane." (*Id.* at Section 7.0.) The results of the
23 monitoring were also to "be used to confirm development of a sufficiently anaerobic
24 environment with an acceptable range of pH to support optimal dechlorination." (*Id.*)
25 Renco and Arcadis have not verified the onset of complete reductive dechlorination of
26 TCE on the Petitioners' Property, and optimal dechlorination has not been achieved. (*See*
27 Murray Decl., Ex. B.) In fact, the remediation undertaken by Renco has significantly

28

1 increased the risk of vinyl chloride vapor intrusion into buildings on Petitioners' Property.
2 (*See id.*)

3 Finally, the 2009 RAP further stated that following the injections in October
4 through November 2010, Arcadis "will report on the need for and feasibility of conducting
5 any additional injections." (*Id.* at Section 8.0.) (*See* Murray Decl., Ex. B.) Arcadis'
6 March 7, 2009 letter takes the position that "no further remedial action (i.e., no substrate
7 injection) is required based upon current data". (Murray Decl., Ex. C.) This is asserted
8 even though Arcadis itself states that existing elevated concentrations "are not expected to
9 diminish significantly in the near future (years)" and in fact it may take "a decade or
10 more". (*Id.*) Thus, Arcadis concedes that, without further active remediation,
11 concentrations of TCE and vinyl chloride will likely remain elevated on Petitioners'
12 Properties. (*See id.*)

13 This is not acceptable; monitored natural attenuation is not appropriate for
14 Petitioners' Property at this time. Although monitored natural attenuation may be
15 appropriate for the Renco Property source area, where several episodes of active
16 groundwater remediation have historically been completed, a monitored natural attenuation
17 remediation approach at Petitioners' Property will not result in the required reduction of
18 chlorinated hydrocarbons-containing groundwater in a reasonable amount of time;
19 "decades" is not reasonable. (*See* Murray Decl., Ex. B.)

20 **2. Further Investigation and Remediation are Necessary for**
21 **Petitioners' Property.**

22 The Regional Board acted prematurely in concurring with Renco and Arcadis to
23 transition this groundwater remediation project from one requiring active remediation to a
24 monitored attenuation approach, at least with respect to Petitioners' Property. Based on the
25 elevated TCE concentrations in groundwater at Petitioners' Property, natural attenuation of
26 TCE-containing groundwater is not an acceptable remedial approach. (*See* Murray Decl.,
27 Ex. B.) Overall, the data indicate that reductive dechlorination is occurring in the area, but
28 is incomplete. (*See id.*)

1 Therefore, additional injections on Petitioners' Property are necessary to accelerate
2 the rate of reductive dechlorination in order to achieve – at a minimum – levels on
3 Petitioners' Property that are comparable to those currently existing on the Renco Property
4 within a reasonable timeframe. Related to this additional active remediation, quarterly
5 sampling should be continued, at least on Petitioners' Property, to ensure that the injections
6 are working and that remediation is proceeding apace.

7 Finally, the rising levels of vinyl chloride on Petitioners' Property indicate the
8 immediate need for Renco and Arcadis to evaluate and quantify the potential for vapor
9 intrusion into the buildings located on Petitioners' Property. Without such investigation,
10 there is the potential for adverse human health effects, which has not been adequately
11 characterized or addressed.

12 **3. The Regional Board's May 13 Action Fails to Protect Water**
13 **Quality.**

14 Pursuant to Water Code section 13000:

15 ... [T]he people of the state have a primary interest in the
16 conservation, control, and utilization of the water resources of
17 the state, and that the quality of all the waters of the state shall
be protected for use and enjoyment by the people of the state.

18 ... [A]ctivities and factors which may affect the quality of the
19 waters of the state shall be regulated to attain the highest water
20 quality which is reasonable, considering all demands being
made and to be made on those waters and the total values
involved, beneficial and detrimental, economic and social,
tangible and intangible.

21 Water Code section 13001 makes the coordination and control of water quality the
22 primary responsibility of the State Board and each Regional Board. Here, the failure of the
23 Regional Board to direct further active remediation and investigation and its apparent
24 concurrence in the May 13 Action with Arcadis' position that remediation is complete and
25 monitored natural attenuation is recommended, is directly at odds with the current data and
26 the Regional Board's mandate to protect water quality. (*See id.*) Accordingly, the May 13
27 Action was improper and inappropriate.

28

1 **IV. CONCLUSION.**

2 The Regional Board's May 13 Action was inappropriate and improper because it
3 supports reduced monitoring and endorses a remediation method that is insufficient to
4 remediate Petitioners' Property. Petitioners respectfully request, pursuant to Water Code
5 section 13320 and California Code of Regulations, Title 23, section 2050 *et seq.*, that the
6 State Board direct the Regional Board to:

- 7 (1) For Petitioners' Property, reinstate the frequency of monitoring in the prior
8 version of Monitoring and Reporting Program No. R3-2005-0143;
- 9 (2) Order Renco and Arcadis to evaluate and quantify the potential for vapor
10 intrusion into the buildings located on Petitioners' Property; and
- 11 (3) Order Renco and Arcadis to conduct additional remediation, including
12 further substrate injections, on Petitioners' Property until the TCE and vinyl
13 chloride concentrations on Petitioners' Property are reduced to concentrations
14 at or below those observed on the Renco Property.

15 Petitioners further request a hearing before the State Board to present the arguments
16 contained herein and evidence attached hereto. Petitioners were not provided with an
17 opportunity for such a hearing before the Regional Board prior to the May 13 Action.

18 Dated: June 10, 2011

ALLEN MATKINS LECK GAMBLE
MALLORY & NATSIS LLP
SCOTT J. LEIPZIG
EMILY L. MURRAY

21 By: /s/ Emily L. Murray
22 EMILY L. MURRAY
23 Attorneys for Petitioners

DECLARATION

1 SCOTT J. LEIPZIG (BAR NO. 192005)
EMILY L. MURRAY (BAR NO. 223815)
2 ALLEN MATKINS LECK GAMBLE
MALLORY & NATSIS LLP
3 515 South Figueroa Street, Ninth Floor
Los Angeles, California 90071-3309
4 Phone: (213) 622-5555
Fax: (213) 620-8816
5 E-Mail: emurray@allenmatkins.com

6 Attorneys for Petitioners

7 **BEFORE THE CALIFORNIA**

8 **STATE WATER RESOURCES CONTROL BOARD**

9
10 LEVON INVESTMENTS, LLC; ROSE
MARIE TOWLE, AS TRUSTEE OF THE
11 ROSE MARIE TOWLE REVOCABLE
TRUST; JOHN L. DEMOURKAS, AS
12 TRUSTEE OF THE JOHN L.
DEMOURKAS REVOCABLE TRUST;
13 JOHN RIDELL, AS TRUSTEE OF THE
CHRISTINA DEMOURKAS 2008 TRUST;
14 STEPHANIE MARIE REDDING, AS
TRUSTEE OF THE STEPHANIE MARIE
15 REDDING 2008 TRUST; ELISA ANN
REDDING, AS TRUSTEE OF THE ELISA
16 ANN REDDING 2008 TRUST; and
WELLS FARGO BANK, AS TRUSTEE
17 OF THE JHERI ELIAS REDDING 1983
IRREVOCABLE TRUST,

18 Petitioners,

19 v.

20 REGIONAL WATER QUALITY
21 CONTROL BOARD, CENTRAL COAST
REGION,

22 Respondent,

23 RENCO ENCODERS, INC. and ARCADIS
24 U.S., INC.,

25 Real Parties in Interest.
26
27
28

**DECLARATION OF EMILY L.
MURRAY IN SUPPORT OF PETITION
CHALLENGING MAY 13, 2011
REGIONAL WATER QUALITY
CONTROL BOARD, CENTRAL COAST
REGION APPROVAL OF REVISIONS
TO MONITORING AND REPORTING
PROGRAM NO. R3-2005-0143 AND
ENDORSEMENT OF MONITORED
ATTENUATION**

DECLARATION OF EMILY L. MURRAY

I, Emily L. Murray, declare and state as follows:

1. I am an attorney at law, duly licensed to practice before all of the courts in the State of California, and a senior counsel in the law firm of Allen Matkins Leck Gamble Mallory & Natsis, LLP, counsel for Petitioners Levon Investments, LLC, Rose Marie Towle, as Trustee of the Rose Marie Towle Revocable Trust; John L. Demourkas, as Trustee of the John L. Demourkas Revocable Trust; John Ridell, as Trustee of the Christina Demourkas 2008 Trust; Stephanie Marie Redding, as Trustee of the Stephanie Marie Redding 2008 Trust; Elisa Ann Redding, as Trustee of the Elisa Ann Redding 2008 Trust; and Wells Fargo Bank, as Trustee of the Jheri Elias Redding 1983 Irrevocable Trust (collectively, "Petitioners"). I make this declaration based upon my own personal knowledge, and if called upon to testify as to the contents hereof, I could and would competently do so.

2. Attached hereto as Exhibit A, is a true and correct copy of the letter dated May 13, 2011 signed by Harvey Packard for Roger W. Briggs, Executive Officer of the Regional Water Quality Control Board, Central Coast Region ("Regional Board"), and attachment thereto.

3. Attached hereto as Exhibit B, is a true and correct copy of the letter dated June 10, 2011 from Petitioners' consultant, Padre Associates, Inc. ("Padre"), to the Regional Board.

4. Attached hereto as Exhibit C, is a true and correct copy of the letter dated March 7, 2011 from Arcadis U.S., Inc. ("Arcadis") to the Regional Board, and attachment thereto.

5. Attached hereto as Exhibit D, is a true and correct copy of the Investec Properties Assessment Report and Remedial Action Plan and Substrate Injection Workplan for the Renco Encoders Site, dated June 29, 2009 ("2009 RAP").

6. Attached hereto as Exhibit E, is a true and correct copy of the Regional Board Order dated August 27, 2008 .

EXHIBIT A



**California Regional Water Quality Control Board
Central Coast Region**



895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
(805) 549-3147 • FAX (805) 543-0397
<http://www.waterboards.ca.gov/centralcoast>

Linda S. Adams
Acting Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

May 13, 2011

Mr. Charles Robinson
Renco Encoders, Inc.
c/o ARCADIS
Charles.Robinson@arcadis-us.com
3150 Bristol Street, Suite 250
Costa Mesa, CA 92626

Dear Mr. Robinson:

**SITE CLEANUP PROGRAM (PCA 2034800): RENCO, 26 COROMAR DRIVE, GOLETA –
PROJECT UPDATE MEETING AND REVISED MONITORING AND REPORTING PROGRAM**

Central Coast Regional Water Quality Control Board (Water Board) staff received the March 7, 2011 letter regarding our January 5, 2011 meeting for the above-referenced property. This letter confirms our discussions concerning site remedial actions and our agreement to revise existing Monitoring and Reporting Program No. R3-2005-0143 (MRP). Decreasing waste concentrations and the success of the source zone remediation support your requested revisions to the MRP and a monitored attenuation approach.

The revised MRP is attached and effective immediately.

If you have additional questions, please contact **Katie Disimone at (805) 542-4638** or Sheila Soderberg at (805) 549-3592.

Sincerely,

Harvey
Packard

Digitally signed by Harvey Packard
DN: cn=Harvey Packard, o=California
Regional Water Quality Control
Board, ou=Central Coast Region,
email=hpacard@waterboards.ca.gov,
c=US
Date: 2011.05.12 14:29:23 -0700

for Roger W. Briggs
Executive Officer

S:\Site Cleanup Program\REGULATED SITES\Santa Barbara Co\Goleta\26 Coromar (Renco)\0511concurrence and MRP
revision.doc

Attachment: Revised Monitoring and Reporting Program No. R3-2005-0143

cc w/ attachment:
Mr. Tim Mullins
Renco Encoders, Inc.
26 Coromar Drive
Goleta, CA 93117

Mr. Robinson

- 2 -

May 13, 2011

Mr. Bruce Tarr
Moseley Associates Inc.
111 Castillian Drive
Santa Barbara, CA 93117

Mr. Greg Parker
200 East Carrillo Street, Suite 200
Santa Barbara, CA 93101-2144

cc via email w/ attachment:

Ms. Katie DiSimone, Water Board kdisimone@waterboards.ca.gov
Mr. Tim Limbers, Arcadis, Tim.Limbers@arcadis-us.com
Mr. Aaron Hook, Arcadis, Aaron.Hook@arcadis-us.com
Ms. Kate Sulka, County Fire, Kate.Sulka@sbcfire.com
Mr. Bill Brace, Investec Management, billy@investecre.com
Mr. Mike Kanno, Goleta Water District, mkanno@goletawater.com
Mr. Ryan Zukor, Padre, rzukor@padreinc.com

California Environmental Protection Agency



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

MONITORING AND REPORTING PROGRAM NO. R3-2005-0143
(Revised May 4, 2011)

CONCERNING

~~RENCO-ENCODERS SITE~~
~~26 COROMAR DRIVE, GOLETA~~
~~SANTA BARBARA COUNTY~~

This Monitoring and Reporting Program supercedes and replaces Monitoring and Reporting Program (MRP) No. 01-056, and any previous revisions of MRP R3-2005-0143.

GROUNDWATER MONITORING

Enhanced reductive dechlorination remediation at this property involved injection of emulsified vegetable oil to accelerate natural degradation of chlorinated solvent compounds. The remediation has decreased contaminant contamination such that monitored natural attenuation appears to be appropriate site management at this time. Renco shall monitor for monitored natural attenuation in groundwater as follows:

Groundwater samples shall be collected annually during June of each year from selected groundwater monitoring wells according to the following:

Well	Analysis Type	Analyte/ Parameter
MW-1, TW-1R, MW-7, MW-10, MW-11, MW-15, MW-16, MW-18, and MW-19	USEPA Method 8260B	Volatile Organic Compounds (VOCs) ¹

¹ The detection limit for individual VOCs shall not exceed 0.5 micrograms per liter (µg/L).

All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and detection limits indicated.

Depth to groundwater (to 0.01 feet accuracy) shall be measured in each monitoring well before it is purged and/or sampled. Before sampling, each well shall be properly purged until measurements of the following parameters have stabilized; temperature, pH,

specific conductance, turbidity, and dissolved oxygen. After purging, groundwater samples shall be collected and analyzed as listed above. Hydrasleeve (low or no-purge sampling method) may be used in lieu of traditional methods described above.

Renco shall abandon existing monitoring wells that are not a part of this monitoring program in accordance with Santa Barbara County Fire-Prevention Division well permit standards and requirements. A report of well abandonment must be submitted to the Water Board by **July 15, 2011**.

REPORTING SCHEDULE

Renco shall submit monitoring and groundwater sampling reports annually by **August 30** of each year. As required by Code of Regulations, Title 23, Division 3, Chapter 30, and Title 27, Division 3, Subdivisions 1 and 2, the responsible parties, or an authorized representative, are required to electronically submit information to the State Water Board's GeoTracker database. Technical report content shall be uploaded in portable data format (pdf) and monitoring data shall be submitted in electronic data format (edf) as described in the above referenced regulations. The reports shall include the following:

1. Results of field and laboratory sampling required by this program in tabular form.
2. A table with well-completion information, including total depths and screened intervals of each well.
3. Scaled maps showing the site and the locations of all monitoring wells.
4. Maps showing calculated potentiometric surfaces for each water-bearing zone.
5. All previous data in tabular form to allow comparison of historic data.
6. An evaluation and interpretation of all available data.
7. A discussion of the performance of monitored natural attenuation in stabilizing or decreasing contaminant concentration and plume containment, including any recommended modifications for the program.
8. Maps showing VOC analyte concentrations.
9. Sampling protocols and field sampling logs.
10. Certified laboratory analytical reports, including quality assurance/quality control data for current data.

The Executive Officer may revise or rescind this MRP.

These requirements are made pursuant to the provisions of Section 13267 of the California Water Code. Pursuant to Section 13268 of the Water Code, a violation of a requirement made pursuant to Water Code Section 13267 may subject you to civil liability of up to \$1,000-per-day.

Ordered By: Harvey Packard Digitally signed by Harvey Packard
DN: cn=Harvey Packard, o=California
Regional Water Quality Control Board,
ou=Central Coast Region,
email=hpackard@waterboards.ca.gov,
c=US
Date: 2011.05.12 14:44:48 -0700 May 13, 2011
for Roger W. Briggs Date
Executive Officer



EXHIBIT B



ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

June 10, 2011
Project No. 0601-1611

California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Attention: Ms. Katie Disimone
Water Resources Control Engineer

Subject: Response to California Regional Water Quality Control Board, Central Coast Region
Letter Dated May 13, 2011 Pertaining to Site Cleanup Program (PCA 2034800) -
Renco Encoders Site, 26 Coromar Drive, Goleta, Santa Barbara County, California.

Dear Ms. Disimone:

Padre Associates, Inc. ("Padre"), on behalf of Investec Management Corporation ("Investec"), representing the owners of record of 82 Coromar Drive and 147-153 Castilian Drive (the "Castilian Building") (collectively the "Investec Properties") is providing this letter in response to the May 13, 2011 letter issued by California Regional Water Quality Control Board, Central Coast Region (RWQCB). The May 13, 2011 letter documented discussions between Arcadis and the RWQCB resulting in the modification of groundwater monitoring and reporting requirements associated with the chlorinated hydrocarbon-containing groundwater contamination plume associated with the Renco facility located at 26 Coromar Drive, Goleta, Santa Barbara County, California ("Renco Site"). Padre's comments are focused on the Investec Properties located hydrogeologically downgradient from, and contaminated by TCE and its derivatives originating upon, the Renco Site. Below, Padre reviews the data applicable to the Investec Properties and requests that the RWQCB require Renco to complete additional actions with respect to the contamination documented at the Investec Properties.

DATA REVIEWED

As a basis for this letter, Padre reviewed the following documents:

- The RWQCB's May 13, 2011 letter;
- The Arcadis document titled *2010 Fourth Quarter Groundwater Monitoring Report, Renco Encoders Site, 26 Coromar Drive, Goleta, California*, dated December 14, 2010 (4Q10 QMR);
- The Arcadis March 7, 2011 letter sent to the RWQCB, which includes a summary of the information provided during the January 5, 2011 meeting between Arcadis and the RWQCB (Arcadis March Report); and
- The Arcadis Remedial Action Plan (RAP) dated June 29, 2009, as well as the RWQCB's approval of that RAP dated July 21, 2009.

PURPOSE OF THE RAP WAS NOT ACHIEVED

Arcadis' stated purpose in the RAP was "to effectively remediate non-source TCE areas" on the Investec Properties (RAP Section 6.0). Arcadis stated that "the proposed substrate injections described [in the RAP] are both appropriately targeted and sufficient in mass" to achieve that objective (Id.). Arcadis anticipated "similar results in successfully reducing CVOC concentrations in similar timeframes on the Investec Properties as were observed on the Renco site" (RAP 6.3.3).

Arcadis proposed groundwater monitoring program following the injections, the results of which "will be used to verify the onset of complete reductive dechlorination of TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and vinyl chloride [VC] to ethane and ethane" (RAP 7.0). The results of the monitoring were to "be used to confirm development of a sufficiently anaerobic environment with an acceptable range of pH to support optimal dechlorination. Arcadis further stated that following the injections in October-November 2009, Arcadis "will report on the need for, and feasibility of, conducting any additional injections" (RAP 8.0).

The Arcadis March Report was not supplied to Investec or Padre prior to the issuance of the RWQCB's May 13, 2011 letter. Following the issuance of the May 13, 2011 letter, and after a request from Investec did Arcadis supply the information on which the RWQCB's letter was based.

The Arcadis March Report summarizes some of the results of the RAP. It states that "the source area of the Renco site has been effectively remediated". It states that the existing elevated concentrations "are not expected to diminish significantly in the near future (years / decades)." It also states that access issues related to the existing buildings limited the ability to achieve lower concentrations.

The Arcadis March Report includes two statements that are contrary to the RAP and to the data presented. Those are a) "All Remedial Actions are complete" and b) "Natural attenuation anticipated will address residual concentrations".

It is important to note what the Arcadis March Report does not state. It does not state that the Investec Properties contaminated by the release from the Renco Site have been effectively remediated. It does not report that the CVOC concentrations at the Investec Properties were reduced to levels observed at the Renco Site. The Arcadis March Report does not evaluate the potential for vapor intrusion issues that could result from the increased vinyl chloride concentrations resulting from the groundwater remediation activities at the Investec Properties. It does not state that Renco has achieved complete reductive dechlorination of TCE, or that optimal dechlorination has been achieved at the Investec Properties.

Notably the Arcadis March Report does not discuss the need for conducting any additional injection events required to achieve effective groundwater remediation. The Arcadis March Report does not adequately reflect the objectives of the RAP, or the effectiveness of the remediation program in achieving them. A straight forward comparison between what Arcadis stated it would complete in the RAP and the Arcadis March Report clearly indicates that the Arcadis statement that "All Remedial Actions are complete" is simply not accurate.

Based on our review of the available information, it is Padre's opinion that the objectives of the RAP have not been achieved because the TCE concentrations in groundwater at the Investec Properties have not been effectively remediated. There has not been sufficient remediation to reduce the CVOC concentrations on the Investec Properties to the levels similar to those observed on the Renco Site, Renco has not verified the onset of complete reductive dechlorination of TCE on the Investec Properties, and optimal dechlorination has not been achieved. Additionally, the remediation activities undertaken by Renco has apparently increased the risk of vinyl chloride vapor intrusion into the Castilian Building.

The RAP targeted achieving reduced CVOC concentrations at the Investec Properties similar to those observed at the Renco Site. The RAP reports that the Renco Site received multiple injections designed to enhance natural attenuation. Renco is clearly aware that CVOC concentrations will not be reduced over a reasonable amount of time through natural attenuation. This point is most clearly made by Arcadis in the RAP, which states: "Under natural conditions, the dissolution of hydrophobic organic compounds (making them available for treatment) is very slow, allowing groundwater plumes to persist for many decades if the dissolution rate cannot be enhanced." (RAP 6.1(4)). There does not appear to have been any documented justification provided to the RWQCB to allow elevated concentrations to exist on the Investec Properties for decades.

It is Padre's opinion that the RWQCB is premature in concurring with the responsible party to transition this groundwater remediation project from one requiring active remediation to a monitored attenuation approach, with respect to the Investec Properties. The apparent path forward for groundwater remediation (monitoring natural attenuation (MNA)) proposed for the Investec Properties is not appropriate at this time. Although MNA may be appropriate for the Renco source area where several episodes of active groundwater remediation have been completed, an MNA remediation approach at the Investec Properties will not result in the required reduction of chlorinated hydrocarbons-containing groundwater in a reasonable amount of time. Arcadis itself states that in the Arcadis March Report that existing elevated concentrations "are not expected to diminish significantly in the near future (years)", and in fact it may require "a decade or more".

PROFESSIONAL OPINIONS BASED ON DATA PRESENTED

Based on the data presented in the cited reports, Padre has the following professional opinions:

- Although the active remediation activities completed at the source area of the Renco property over the past 20 years have apparently been successful in significantly reducing concentration of chlorinated hydrocarbons in soil and groundwater located at the Renco property, these remediation efforts have not reduced TCE concentrations in groundwater to generally accepted remediation requirements on the Investec Properties. Without further active remediation, concentrations of TCE and vinyl chloride will likely remain elevated under the Castilian Building and elsewhere on the southern half of the Investec Properties.
- Our review of the November 2010 analytical data for groundwater monitoring wells located near Investec's Castilian Drive Building (MW-11, MW-13, MW-14, MW-15, MW-16, and MW-17) indicates that the remediation is not complete. Padre reviewed historical and current groundwater analytical data from Table 2 of the Arcadis 2010 Fourth Quarter Groundwater Monitoring Report. TCE concentrations generally declined and/or remained at relatively the same concentrations in all the above-listed wells from approximately January 2008 (prior to the fall 2009 injections) to November 2010 (following those injections). Significantly elevated TCE concentrations in groundwater remain at the locations of groundwater monitoring well MW-16 (3,300 micrograms per liter (ug/l)), MW-11 (750 ug/l), MW-13 (430 ug/l), MW-14 (230 ug/l), MW-15 (160 ug/l), and MW-17 (140 ug/l). All of these concentrations are well above the RWQCB's applicable remedial action concentrations, which therefore require further active remedial efforts.
- Arcadis has conducted enhanced reductive dechlorination remediation injections at the Renco Site in at least four separate injection sequences, (September 2001, September 2001-April 2003, July and August 2006, and October-November 2009). Arcadis has conducted only one enhanced reductive dechlorination remediation injection sequence on the Investec Properties (October-November 2009). As a result, Arcadis has achieved substantially reduced TCE and vinyl chloride concentrations in groundwater at the Renco Site as compared to those at the Investec Properties. TCE and vinyl chloride concentrations at the Investec Properties are very different than the concentrations that reportedly remain at Renco's property as the result of the increased active remediation efforts Renco has made on its property. Attached as Table 1 is a comparison of the remaining TCE and vinyl chloride concentrations at the two properties.

The remediation activities implemented at the Renco property have not resulted in the complete degradation of TCE, which has resulted in elevated TCE and vinyl chloride concentrations in groundwater at the Castilian Building property. Vinyl chloride concentrations increased significantly at the locations of several wells: MW-11 (from 370 to 1,900 ug/l); MW-16 (from 7.9 to 46 ug/l); and MW-17 (from 0.79 to 110 ug/l). These wells all are located outside the southeast corner of Castilian Building. The extent of increased vinyl chloride concentration underlying the building, and maximum concentrations are currently unknown at this area of the Investec Properties.

- Based on the elevated TCE concentrations in groundwater at the Investec Properties, natural attenuation of TCE-containing groundwater is not an acceptable remedial approach. Overall, the data indicate that reductive dechlorination is occurring in the area, but is incomplete.

REQUIREMENTS FOR ADDITIONAL REMEDIATION REQUESTED

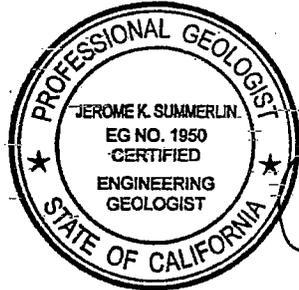
Based on the foregoing opinions, the stated purposes of the RAP, and the data presented, Padre, on behalf of Investec and the owners of record of the Investec Properties, respectfully requests that the RWQCB consider requiring Renco to complete the following activities on the Investec Properties:

- Evaluation and quantification of the potential for vapor intrusion into the Castilian Building. This request is based on the elevated vinyl chloride concentrations on the Investec Properties, the fact that the increased concentrations are a direct result of the Arcadis remedial activities, and the fact that Renco/Arcadis have conducted no study of the potential for vapor intrusion on the Investec Properties; and
- Conduct additional injections of the emulsified vegetable oil (EVO) at the Investec Properties until the CVOC concentrations at the Investec Properties are reduced to concentrations at or below those observed on the Renco Site. Due to projected vacancies and anticipated tenant accommodations, the injection events should include injections inside of the Castilian Building at locations approved by the owners of the Castilian Building necessary to reduce elevated CVOC concentrations below that building.

Padre Associates, Inc. and Investec Management Corporation appreciate your consideration of this request and look forward to your response. If you have any questions or require additional information, please contact the undersigned.

Sincerely,

PADRE ASSOCIATES, INC.



Jerome K. Summerlin
Jerome K. Summerlin C.E.G., C.Hg. R.E.A. II
Principal

-Attachment: Table 1

- c: Mr. Greg Parker - Investec Management Corporation
Mr. Bill Brace - Investec Management Corporation
Emily Murray, Esq. - Allen Matkins

**Table 1. Comparison of TCE and Vinyl Chloride Concentrations in Groundwater,
 November 2010 at the Renco and Investec Sites**
 (all concentrations in micrograms per liter (µg/l))

Renco Monitoring Wells			Investec Monitoring Wells		
	TCE	VC		TCE	VC
MW-7	3.6 / 7.5	160 / 160	MW-11	750 / 860	1,900 / 1,900
MW-9	8.4	51	MW-13	430	25
TW-1R	48	510	MW-14	230 / 160	4.5 / 2.6
			MW-15	160	2.2
			MW-16	3,300	46
			MW-17	140	110

EXHIBIT C



ARCADIS U.S., Inc.
320 Commerce Street
Suite 200
Irvine
California 92602
Tel 714-730-9052
Fax 714-730-9345
www.arcadis-us.com

Ms. Katie DiSimone
California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

ENVIRONMENTSER4

Subject:

Summary of the January 5, 2011 Meeting Between the Central Coast RWQCB and ARCADIS Regarding the Renco Encoders Site and Transmittal of a Revised Monitoring and Reporting Program, Goleta, California

Date:

March 7, 2011

Dear Ms. DiSimone:

Contact:

Charles Robinson

ARCADIS U.S., Inc. (ARCADIS) has prepared this letter to summarize our presentation, discussions, and requests regarding the Renco Encoders, Inc. property (Renco Site) made during the meeting on January 5, 2011 attended by Katie DiSimone and Sheila Soderberg of the California Regional Water Quality Control Board, Central Coast Region (RWQCB) and Tom Johnson, Aaron Hook, and Charles Robinson from ARCADIS, as well as Kurt Beil and Matthew Schnobrich from ARCADIS, who attended by telephone. The purpose of the meeting was to discuss the status of remedial actions completed at the Site to address historical releases of trichloroethylene (TCE), and to ascertain if the RWQCB believed that any additional remedial actions would be required.

Phone:

714.508.2607

Email:

charles.robinson@arcadis-us.com

Our ref:

CM008031.0020

The slides we presented in the meeting are attached. These slides summarize the results of site investigations and remedial actions conducted over the past decade under the direction of the RWQCB.

The following is a brief summary of the main points of our discussions and the conclusions from our meeting.

- The horizontal and vertical extent of the affected resource has been well defined:
 - The zone of groundwater contamination is contained within shallow, thin, interbedded and discontinuous strata of generally lower resource value, which is very difficult to remediate;
 - Deeper groundwater zones have not been impacted; and
 - No surface water impacts were found.

Imagine the result

- Remediation of the original area of release at the Renco Site is essentially complete. The source area for the Renco Site has been effectively remediated. Both vadose zone soils and groundwater contain only trace concentrations and continue to demonstrate declining trends.
- Significant mass reduction has been achieved throughout the entire plume.
- Elevated concentrations are still present in limited areas of the plume; however, due to the recent treatment and natural attenuation, these concentrations are declining. These concentrations are not expected to diminish significantly in the near future (years).
- Treatment was conducted in accordance with the work plan approved by the RWQCB staff, but access issues related to buildings and public right-of-ways limit the ability to directly achieve lower concentrations in those areas through the approved active remedial technology (i.e., direct injection).
- All remedial actions are complete and consistent with what has been requested by the RWQCB.
- Substantial expenditures have been made to remediate this site, despite the low resource potential of the groundwater, and we do not believe significant additional expenditures are warranted.
- Work on the Sares Regis property indicates that the indoor air exposure pathway from the underlying groundwater is limited, while less is known regarding the vapor pathway on the Investec property.

Natural attenuation, while not considered a remedial action herein, will address residual concentrations to achieve water quality objectives over a reasonable time frame, which may span a decade or more. Additionally, ARCADIS will perform ongoing monitoring to confirm the continued reductions of concentrations of chlorinated volatile organic compounds (CVOCs) in the affected water at the Renco Site, as may be requested by the RWQCB. The RWQCB concurred that no further remedial action (e.g., no substrate injection) is required based upon current data. Further, the RWQCB would consider a reduced monitoring program to observe the ongoing reduction of CVOCs resulting from both enhanced and natural attenuation processes.

ARCADIS

Ms. Katie DiSimone
California Regional Water Quality Control Board
Central Coast Region
March 7, 2011

For ongoing site-monitoring, the RWQCB also concurred with changing the frequency of the groundwater monitoring program for the Site from quarterly to annually. The RWQCB also approved our recent request to use the Hydrasleeve (no purge) method for future groundwater sampling efforts. Accordingly, we have attached for your review and approval a proposed modified Monitoring and Reporting Program (MRP) for the Renco Site that reflects these changes.

Please provide concurrence of the meeting contents as discussed in this letter, as well as your approval of the modified MRP.

We again thank you for your attention and assistance with this matter.

Sincerely,

ARCADIS U.S., Inc.



Charles E. Robinson, P.E.
Vice President and Principal Engineer

Copies:
Tim Rose, Renco Encoders

Attachments:
January 5, 2011 Meeting Slides
Monitoring and Reporting Program

Renco – Project Status Meeting
Central Coast Regional Water Quality Control Board
January 5, 2011

Agenda

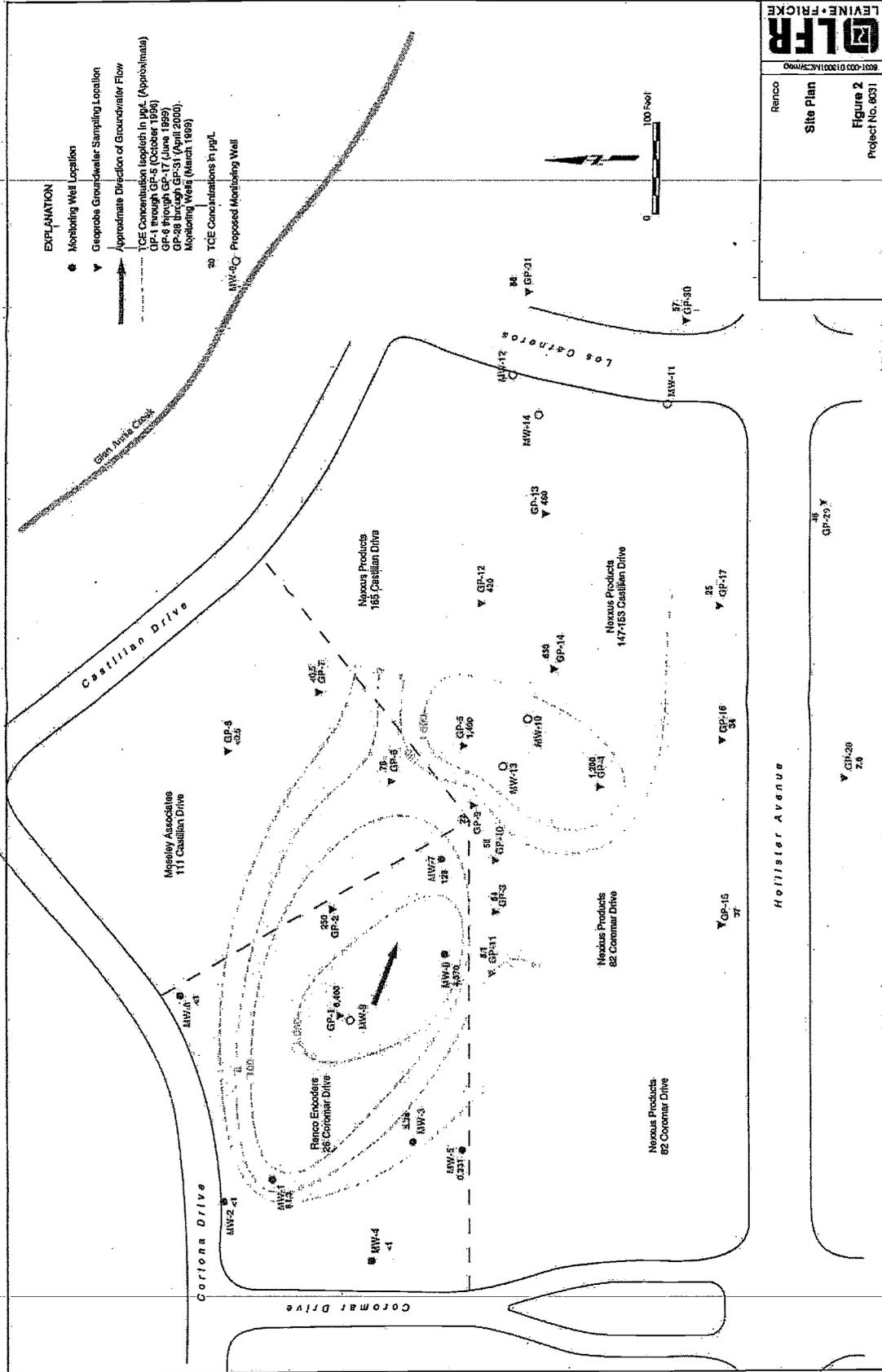
- Introduction
- Review of remedial progress
- Remedial action effectiveness
- Conclusions
- Discussions

Presentation Summary

Renco Release Remedial Progress

- Extent of contamination has been defined
- Source area has been remediated
- Significant mass reduction throughout plume
- Continuing reduction in VOC concentrations
- Remedial actions completed
- Natural attenuation anticipated will address residual concentrations

TCE Plume - 2001 Data

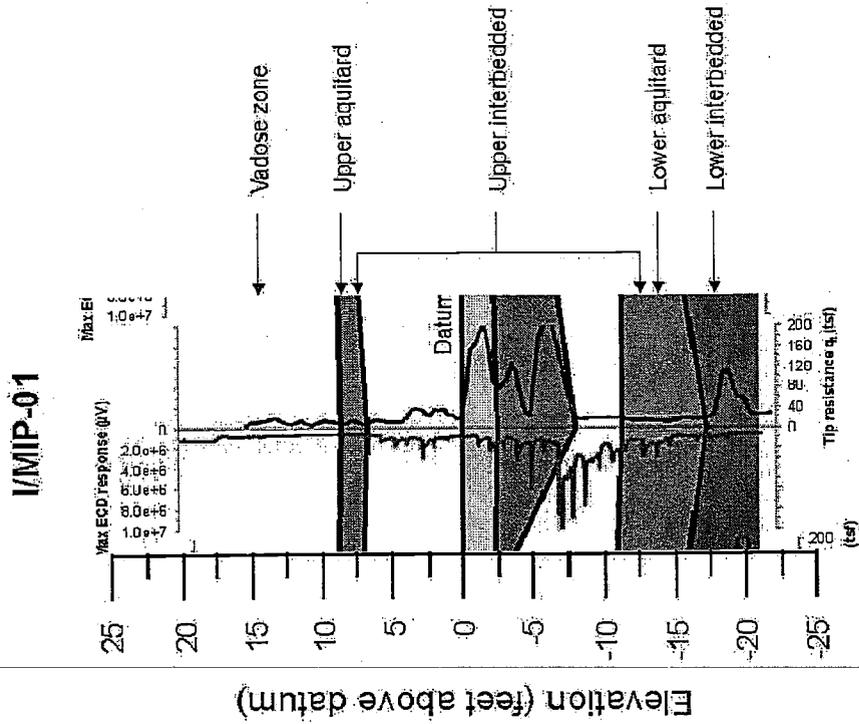


LEVINNE • FRICKE
DLFR
 8001-000-0130001-KFC/17/00

Renco
Site Plan

Figure 2
 Project No. 0031

Site Hydrogeology



Vadose Zone: Silts and clays with local fine sand interbeds

Upper Aquitard: laterally continuous silt and clay, 2 to 4 feet thick

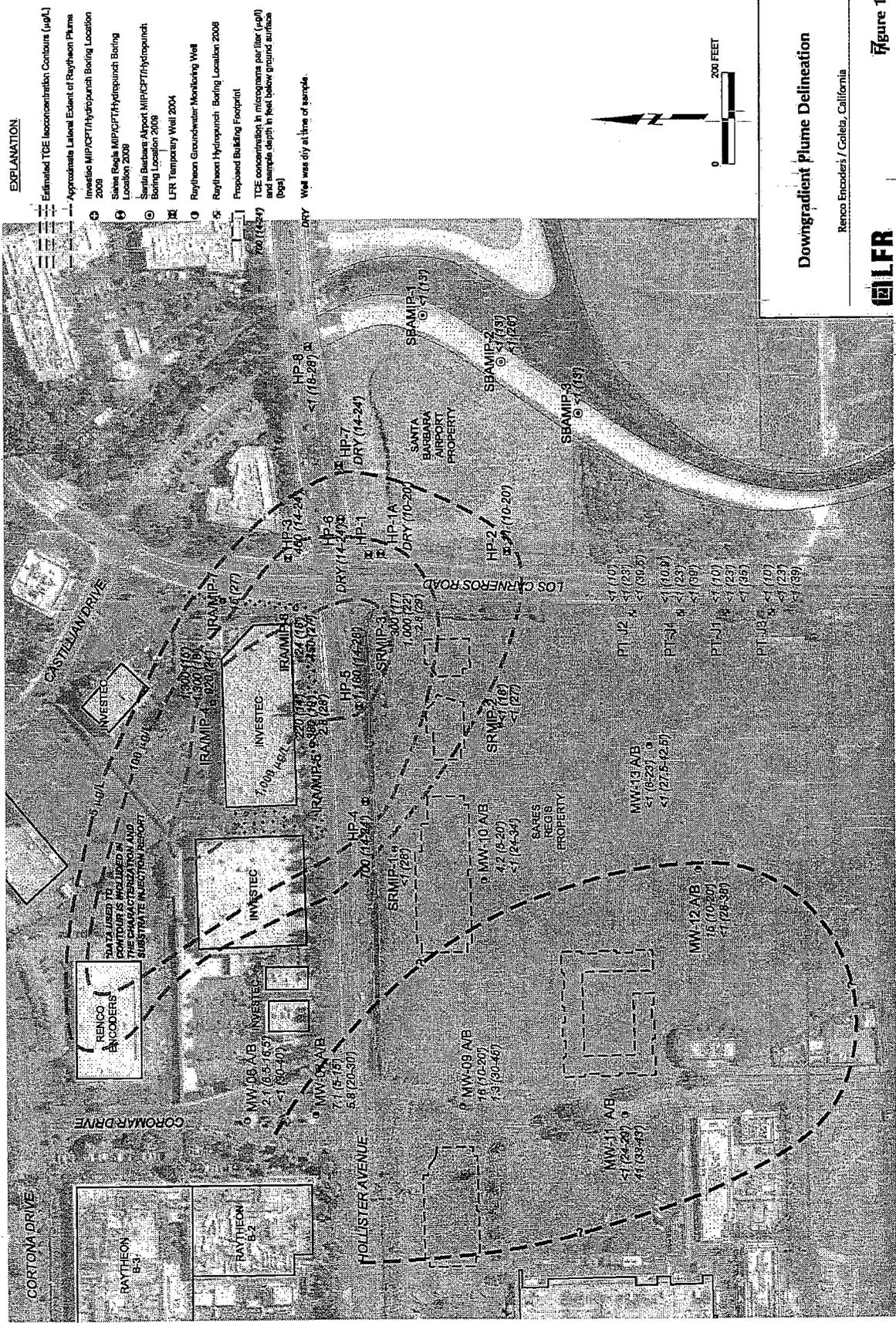
Upper Interbedded: saturated, fine-grained fluvial deposit, 12 to 14 feet thick

- o shallow, thin, interbedded strata with coarse-grained sand 3 to 5+ feet thick- apparent transmissive zone across site.

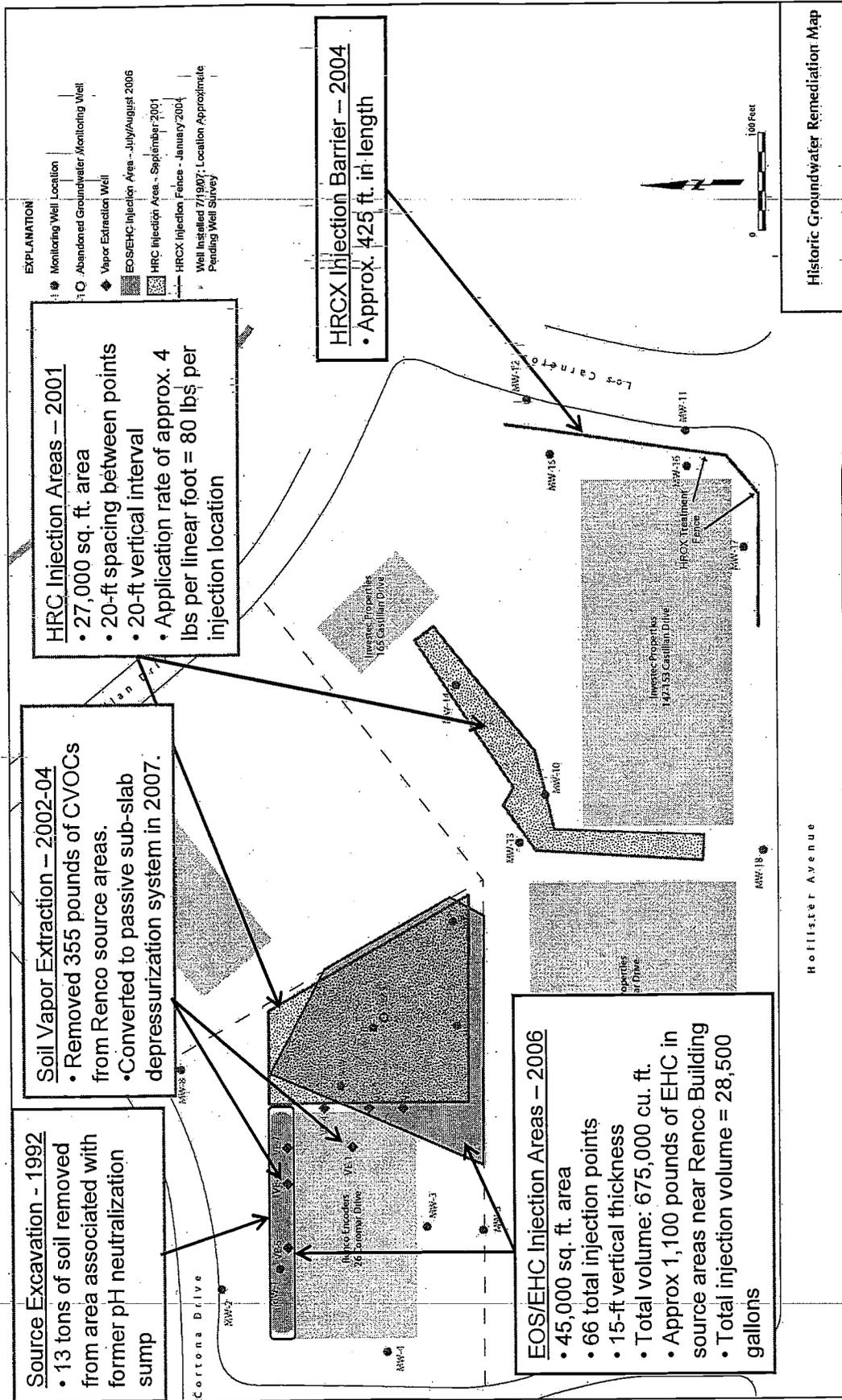
Lower Aquitard: laterally continuous clay and silty clay, 2 to 6 feet thick. Confining unit for underlying strata

Lower Interbedded: fine-grained fluvial deposits, unknown thickness. No VOC mass detected in this deeper strata

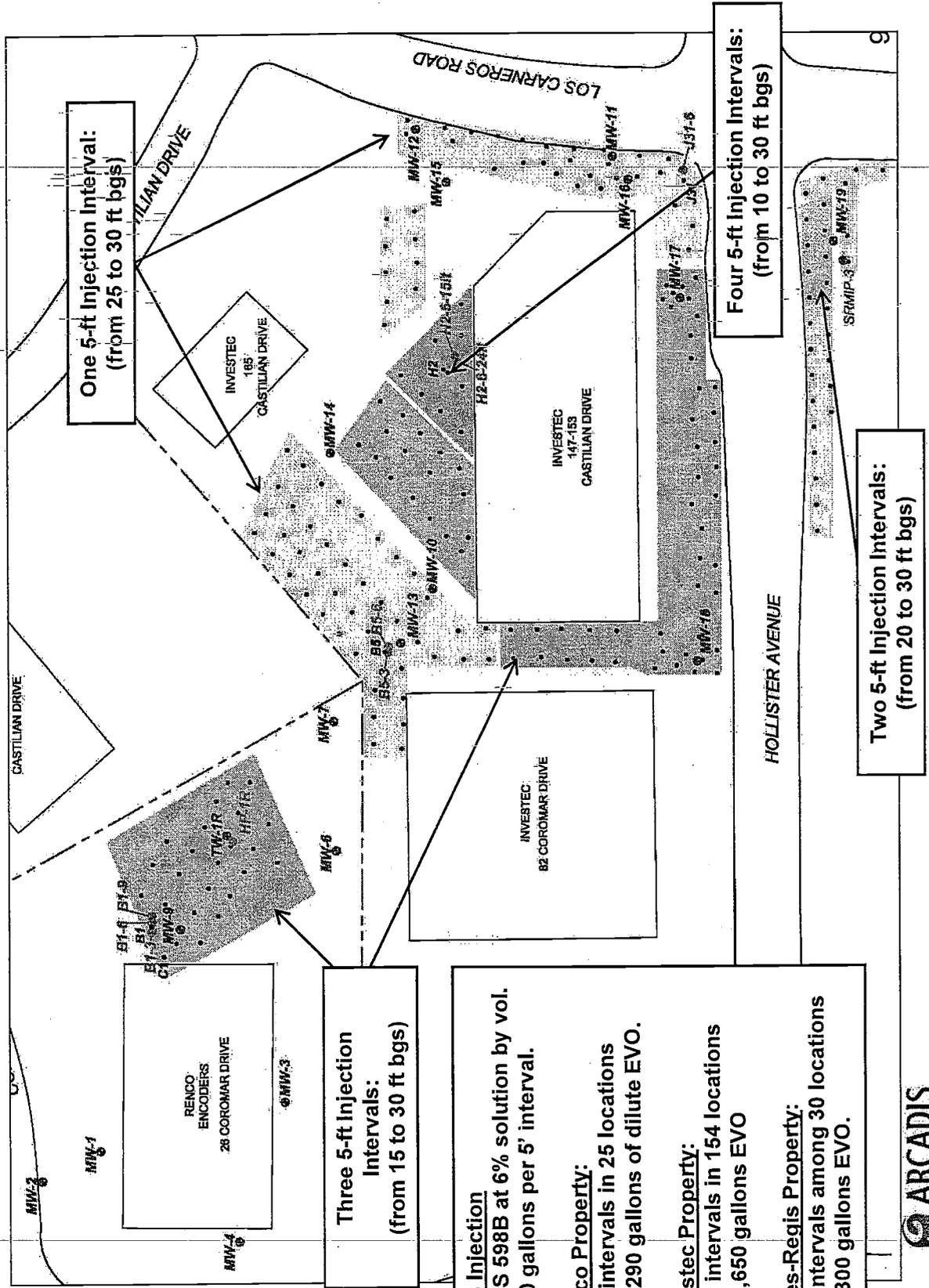
TCE Plume - 2009



Remedial Activities (2001 – 2006)



October 2009 Injection Activities



EOS Injection

- EOS 598B at 6% solution by vol.
- 350 gallons per 5' interval.

Renco Property:

- 78 intervals in 25 locations
- 27,290 gallons of dilute EVO.

Investec Property:

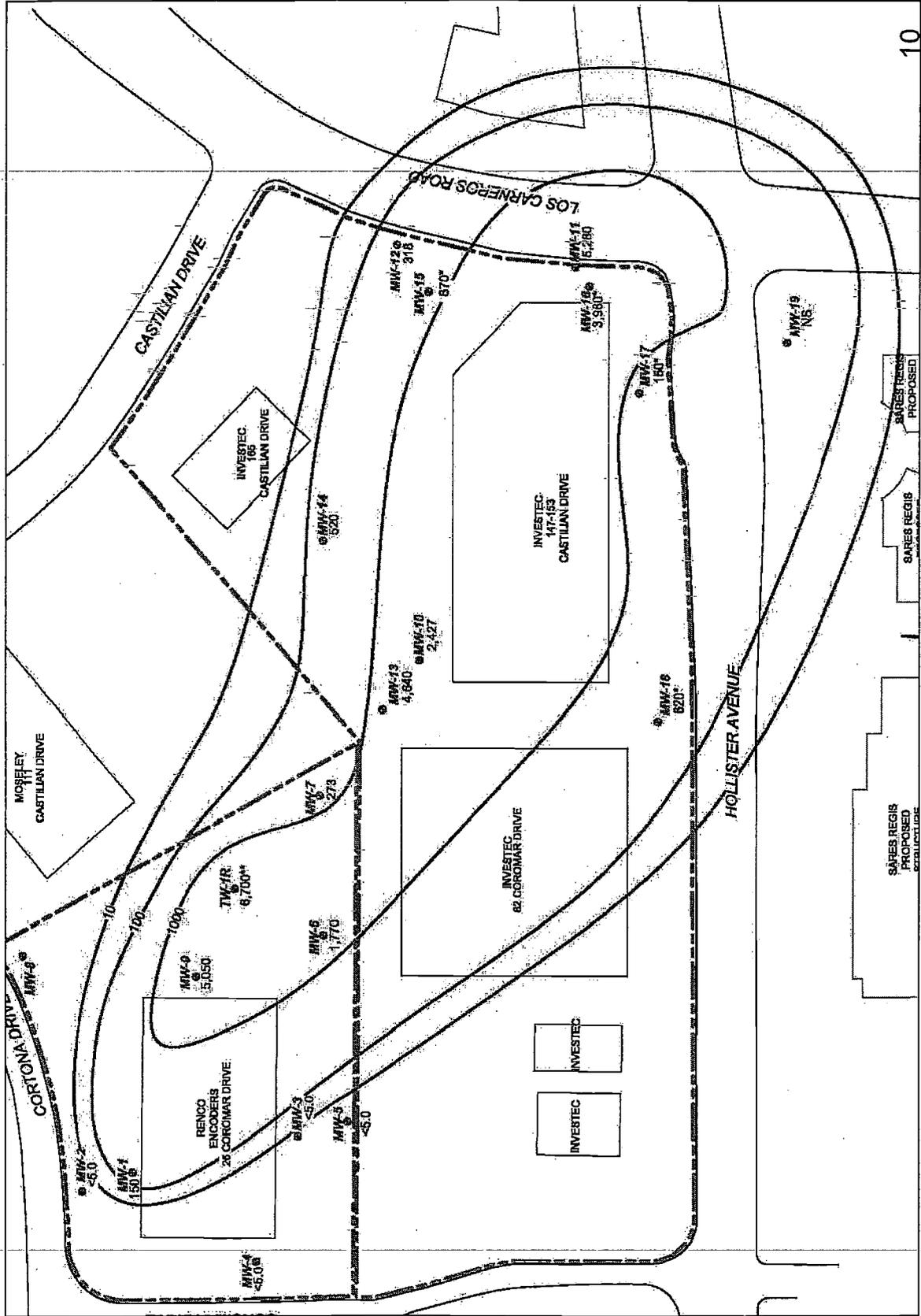
- 312 intervals in 154 locations
- 112,650 gallons EVO

Sares-Regis Property:

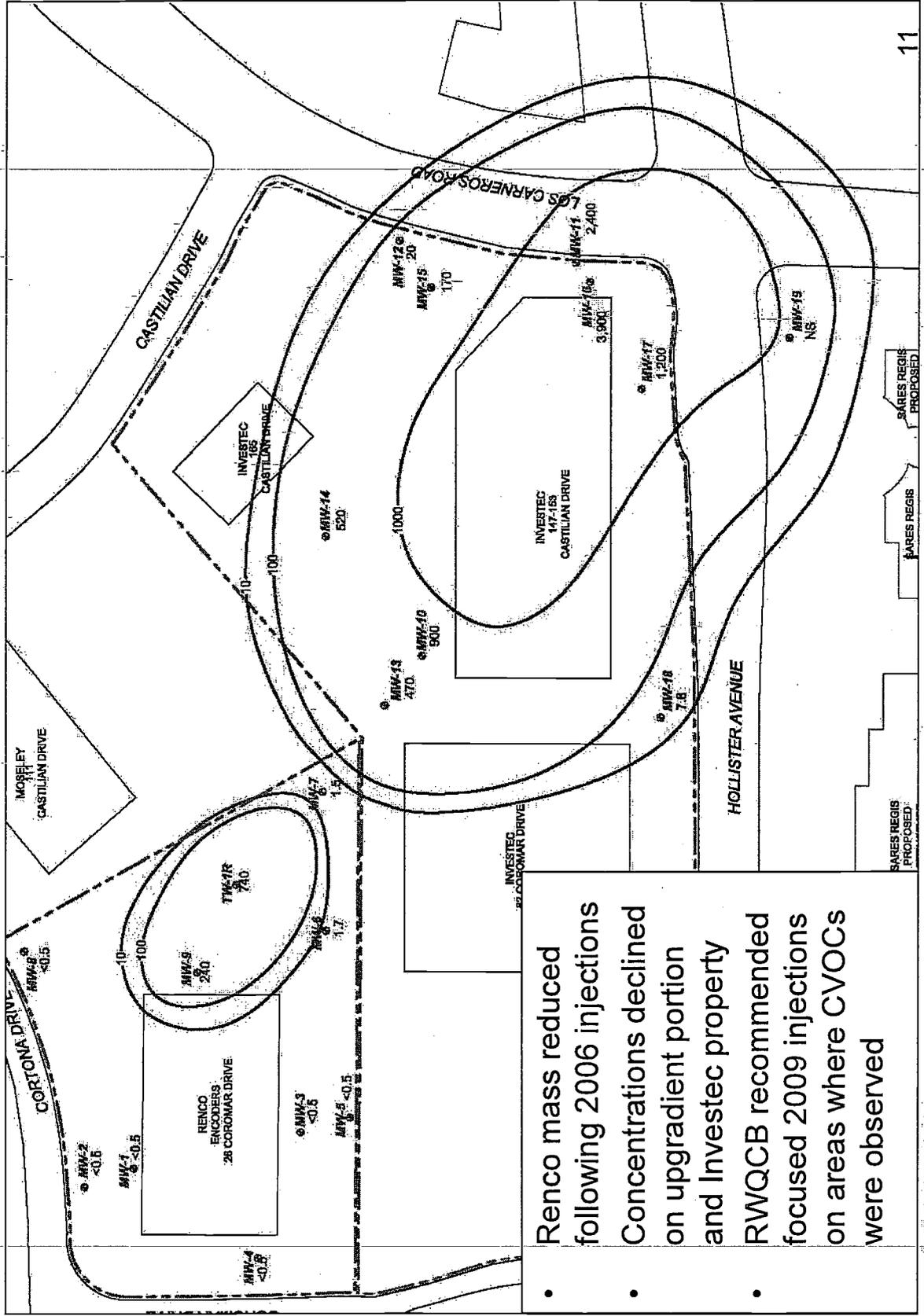
- 38 intervals among 30 locations
- 13,300 gallons EVO.



Remedial Progress TCE (2001 - 2004)

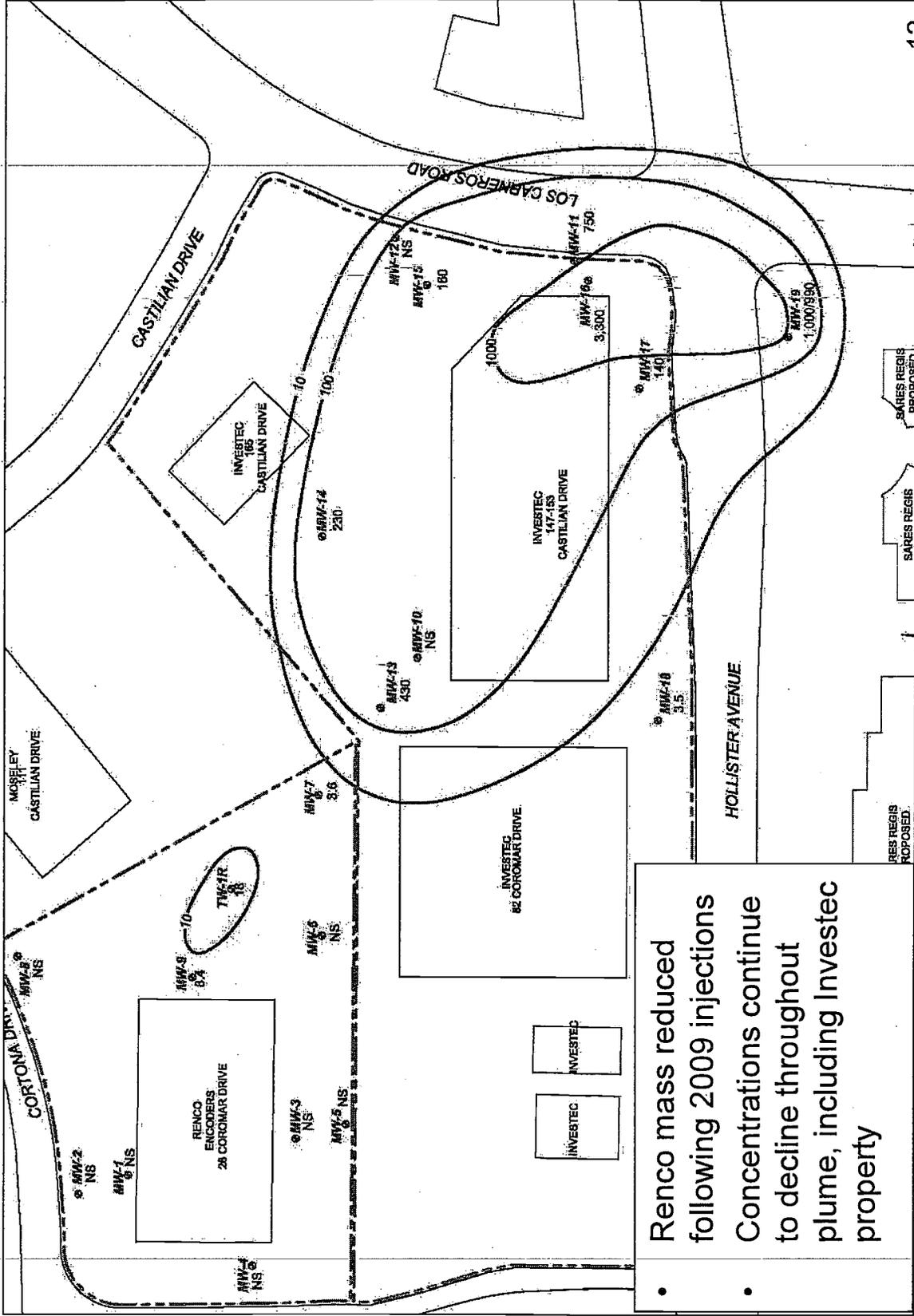


Remedial Progress TCE - 2009



- Renco mass reduced following 2006 injections
- Concentrations declined on upgradient portion and Investec property
- RWQCB recommended focused 2009 injections on areas where CVOCs were observed

Remedial Progress TCE - 2010



- Renco mass reduced following 2009 injections
- Concentrations continue to decline throughout plume, including Investec property

RES REGIS PROPOSED. SARES REGIS PROPOSED.



Conclusions

- Horizontal and vertical extent of contamination has been well defined
 - Affected zone contained within shallow, thin, interbedded strata- lower value resource
 - Deeper zone not impacted
 - No surface water impacts
- Source area remediated – soil and groundwater
- Significant mass reduction throughout plume
- Continuing reduction in VOC concentrations caused by injected carbon substrate
- Remedial Actions Completed
- Natural attenuation will address residual concentrations

EXHIBIT D

**Investec Properties Assessment Report
and Remedial Action Plan and
Substrate Injection Workplan
for the Renco Encoders Site
82 Coromar Drive and 147-165 Castilian Drive
Goleta, California**

**June 29, 2009
002-08031-20**

Prepared For:
California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Prepared By
LFR an ARCADIS Company
301 S. Miller Street, Suite 210
Santa Maria, California 93454

CONTENTS

CERTIFICATION	v
1.0 INTRODUCTION.....	1
2.0 OBJECTIVES	2
3.0 PREVIOUS REMEDIAL ACTIVITIES.....	2
4.0 MARCH 2009 FIELD INVESTIGATION.....	4
4.1 Pre-Field Activities	4
4.2 Cone Penetrometer Test and MIP Investigation – March 2009	5
4.2.1 CPT/MIP Approach and Application	5
4.2.2 CPT/MIP Investigation Field Methods	5
4.2.3 Confirmation Sampling and Analysis	6
4.3 Investigation-Derived Waste	7
5.0 MARCH 2009 CPT/MIP INVESTIGATION RESULTS AND DISCUSSION	7
5.1 CPT/MIP Results	8
5.2 Revised Conceptual Site Model.....	9
6.0 REMEDIAL INJECTION WORKPLAN	9
6.1 Overview of Enhanced Reductive Dechlorination	10
6.2 Substrate Selection	11
6.3 Injection Program Design.....	12
6.3.1 Injection Network Configuration	12
6.3.2 Proposed Injection Volume and Substrate Loading Calculations.....	13
6.3.3 Full-Scale Injection	14
7.0 PROPOSED GROUNDWATER MONITORING ACTIVITIES	15
8.0 PROPOSED SCHEDULE	16

9.0 LIMITATIONS STATEMENT..... 16

10.0 REFERENCES 17

TABLES-

- 1 Summary of Hydropunch Groundwater Sample Results
- 2 Summary of Soil Confirmation Sample Results

FIGURES

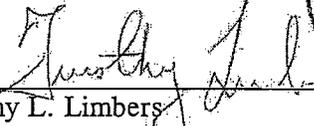
- 1 Site Location Map
- 2 Remedial Assessment Boring Location Map Showing March 2009 MIP Results
- 3 Historical Injection Areas
- 4 Cross-Section A-A'
- 5 Investec Properties Proposed Injection Locations
- 6 Renco Property Proposed Injection Locations

APPENDICES

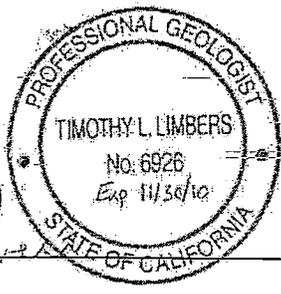
- A Cone Penetrometer Test (CPT) Boring Logs
- B Laboratory Reports and Chain-of-Custody Forms for Soil and Grab Groundwater Samples
- C Proposed Injection Volume Calculations
- D Vironex Emulsified Oil Substrate Injection Standard Operating Procedures

-CERTIFICATION*

All hydrogeologic and geologic conclusions and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Inc. California Professional Geologist.

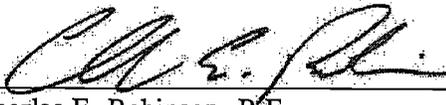


Timothy L. Limbers
Principal Hydrogeologist
California Professional Geologist (6926)



June 29, 2009
Date

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Inc. California Professional Engineer.



Charles E. Robinson, P.E.
Vice President
California Professional Civil Engineer No. C-035368



June 29, 2009
Date

* A professional geologist's and professional engineer's certification of conditions comprises a declaration of his or her professional judgment. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations, and ordinances.

1.0 INTRODUCTION

In accordance with the Third Remedial Action Plan (RAP) Amendment dated November 14, 2008, LFR Inc. (LFR) submits this Investec Properties Assessment Report and Remedial Action Plan and Substrate Injection Workplan for the Renco Encoders (Renco) property located at 26 Coromar Drive, Goleta, California ("the Site"). The Third RAP Amendment addresses chlorinated volatile organic compounds (CVOCs) in groundwater on and downgradient from the adjacent Investec Real Estate Companies (Investec) properties located at 82 Coromar Drive and 147-165 Castilian Drive (Figures 1 and 2) (collectively referred to as "the Investec Properties"). In their letter to LFR dated February 13, 2009, the California Regional Water Quality Control Board, Central Coast Region (RWQCB) conditionally approved the Third RAP Amendment Updated Scope of Work for the Renco facility, dated January 15, 2009.

In response to comments provided by Investec regarding site access limitations, the RWQCB reduced LFR's proposed scope of investigation and again limited further proposed characterization efforts on the Investec Properties. Reducing LFR's proposed further site investigations of the Investec Properties limits our ability to determine the effects of any source(s) on remedial efforts. To address this issue, the RWQCB's conditional approval dated February 13, 2009 stipulated that, should remedial efforts similar to those successfully implemented at the adjacent Renco Site fail to remediate groundwater on the Investec Properties, such failure may suggest the presence of a source at the Investec Properties. In that case, the RWQCB indicated that it would then look to Investec to implement any needed additional characterization and remedial efforts.

The Third RAP Amendment also proposed groundwater assessment activities downgradient from the Investec Properties to assess the extent of CVOCs in groundwater and to evaluate whether affected groundwater has migrated to and significantly impacted the Goleta Slough or other nearby surface-water bodies. Implementation of the downgradient assessment activities has been delayed largely due to the time required to negotiate property access from two downgradient property owners (Santa Barbara Airport and Sares Regis). As discussed in telephone conversations between LFR and RWQCB representatives on February 23 and June 9, 2009, and as confirmed by email correspondence on May 21, 2009, field work and reporting for downgradient assessment activities on these properties will be completed upon the successful conclusion of access negotiations with both property owners. As agreed by the RWQCB, the results of these subsequent characterization activities and any remedial efforts are scheduled to be presented in an addendum to this report, which will be submitted by August 14, 2009, unless other unforeseen delays occur.

2.0 OBJECTIVES

The primary objectives of this RAP and recent remedial assessment activities conducted at the Investec Properties are:

- 1) Further refine the conceptual site model (CSM), and
- 2) Finalize the design of the approved remedial strategy (enhanced reductive dechlorination).

The original objectives of the remedial characterization were modified and limited by the RWQCB's approval of the remedial characterization on February 13, 2009 in response to comments from Investec. As discussed above, additional site investigations have been conducted to further evaluate and validate the CSM. The primary goal was to better define the extent of CVOC-impacted groundwater and sediments to be addressed by remedial efforts. LFR's original scope of work included shallow Membrane Interface Probe (MIP) borings to further evaluate probable additional source areas on the Investec Properties. This information is needed to confirm or refine the CSM's characterization of potential sources on the Investec Properties for remedial design purposes. Remediation of CVOC source zones is typically more challenging than remediation of the resulting groundwater plumes. This is a result of the greater mass and concentration of contaminant, coupled with the fact that some of the contaminant mass may be in the form of a non-aqueous phase (requiring desorption or dissolution to effect treatment) or diffused into the porewater associated with fine-grained sediments (where access becomes diffusion limited). In response to Investec's objections, the RWQCB reduced the scope of LFR's Site characterization, and the RWQCB has indicated that Investec would be responsible for characterization and remediation of source zones on the Investec Properties. The presence of any such additional source zones on the Investec Properties would be indicated by persistent elevated CVOC concentrations or repeated rebound of CVOC concentrations in groundwater following implementation of LFR's proposed remedial efforts on the Investec Properties.

3.0 PREVIOUS REMEDIAL ACTIVITIES

Multiple investigations and remedial efforts to evaluate volatile organic compound (VOC) impacts to soil and groundwater on the Renco Site and the Investec Properties have been implemented by LFR and previous consultants as well as Investec's consultants. A timeline and summary of some of these activities is presented below.

1992. Hoover & Associates, Inc., excavated approximately 13 tons of soil during removal of the former pH neutralization sump on the north side of the Renco Encoders Building.

February 2001. On February 13, 2001, LFR submitted to the RWQCB a RAP to address soil and groundwater concerns related to a reported release of chlorinated solvents at the Renco facility. The RAP included a three-phase approach for remediation of dissolved-phase VOCs in groundwater using enhanced reductive dechlorination, and the installation and operation of a soil vapor extraction (SVE) system to remove residual chlorinated solvents from impacted soil beneath and adjacent to the current building on the Renco Site. Available data at that time suggested that the groundwater plume extended onto the Investec Properties and terminated on the downgradient boundary of those properties.

September 2001. Following additional characterization efforts, LFR implemented the initial phase of groundwater remediation activities, which involved the subsurface injection of Hydrogen Release Compound (HRC®) on the Renco Site and portions of the Investec Properties located downgradient of the Renco Site. Injection locations in the initial phase of remediation are shown on Figure 3. While groundwater analytical results following injection showed some reductions in VOC concentrations on the Renco Site and the Investec Properties, the observed reductions were less substantial than had been anticipated, with moderate reductions observed on the Renco Site and little to no reductions on the Investec Properties. Based on this information, LFR evaluated and considered other products and application strategies for potential use in subsequent subsurface injections.

February 2002 – June 2004. LFR operated a soil-vapor extraction and treatment system (SVETS) to remove VOCs from shallow soil and soil vapor beneath and immediately surrounding the Renco building, where the Renco TCE release was known to have originated. The SVETS operated continuously from February 2002 through July 2002, and in pulse mode from August 2002 through June 2004. The combined continuous and pulse-mode operation of the SVETS was effective in removing VOC mass. A total of 355 pounds of VOC mass was estimated to have been removed during the operation of the SVETS.

A soil closure investigation was conducted in September 2006. Results of the investigation indicated that only low concentrations of TCE remained in soil and soil gas along the northern and eastern perimeter of the Renco building, all below RAP remedial objectives. In May 2007, under the regulation of the Santa Barbara County Fire Department and as directed by the RWQCB, LFR converted the SVE wells into a sub-slab depressurization system to mitigate soil vapor and address possible concerns associated with residual VOCs in the subsurface. The Santa Barbara County Fire Prevention Division (FPD) recommended closure for soil issues at the Site in December 2007 and issued a deed restriction for the property that was recorded with Santa Barbara County on December 21, 2007. The Soil Management Plan (SMP) was conditionally approved by the FPD in a letter to LFR dated October 3, 2008. Modifications to the SMP were submitted on December 5, 2008. The FPD has recommended closure of soil-related issues at the Renco Site to the RWQCB; any RWQCB response is still pending.

September 2002 – April 2003. With the RWQCB's concurrence, LFR conducted a pilot study that included injection of three different enhanced in-situ bioremediation substrate products (HRC-X® [a more concentrated version of HRC®], WILClear™, and LactOil), all of which furthered the RWQCB directive to remediate the groundwater plume. The purpose of the pilot study was to evaluate and compare the relative effectiveness of these products for the design of a subsequent application of substrate.

Based on the results of the pilot study, LFR observed that each of the tested alternative products (food-grade materials) successfully reduced VOCs through enhanced reductive dechlorination at the Site, suggesting latitude in the selection of reductive reagents. In addition, as a result of elevated TCE concentrations on the downgradient boundary of the Investec Properties, which were significantly higher than identified by the available data to devise the RAP, LFR selected the reagent HRC-X® for injection as a treatment barrier fence to address VOCs flowing in groundwater. In accordance with the RAP, a 425-foot long HRC-X® treatment fence was installed in January 2004 at a location on the southeast downgradient margin of the Investec Properties (Figure 3).

July and August 2006. Following additional characterization efforts on the Renco Site, and after efforts to gain access to the Investec Properties had been repeatedly rebuffed by Investec representatives, LFR performed an injection of EOS® and EHC™ substrates to enhance anaerobic biodegradation of VOCs in groundwater beneath portions of the Renco Site, with no similar remedial injection on the Investec Properties as a result of the access impasse. EHC™, a more viscous and concentrated substrate which also included zero-valent iron, was injected in the "hot spot" areas of the Renco Site surrounding the former pH neutralization sump and surrounding the hazardous materials storage area to potentially address more resilient concentrations that resulted from the original TCE release. EOS®, a thin and less viscous material, was injected along the northern perimeter of the building on the Renco Site and in the area between monitoring wells MW-9 and MW-7 (Figure 3). Laboratory results and chemical parameters measured since injection indicate that these injection activities were performed in a similar manner, and both successfully reduced VOC concentrations in groundwater beneath the Renco Site and in the immediate downgradient area (LFR 2007a).

4.0 MARCH 2009 FIELD INVESTIGATION

This section describes the remedial assessment activities conducted on the Investec Properties by LFR in March 2009.

4.1 Pre-Field Activities

A site-specific Health and Safety Plan (HSP) was prepared in accordance with Occupational Safety and Health Administration (OSHA) regulations, as specified in Title 29 of the Code of Federal Regulations (CFR), Section 1910-120, and as specified by LFR's corporate health and safety program. The HSP outlines potential hazards

associated with performing field work, as well as the measures to be taken to minimize risks associated with these hazards.

USA Dig Alert was notified 48 hours prior to sampling activities. LFR also used a private underground utility locating service to check for any unmarked utilities on the properties. To further protect against potential damage to underground utilities, all borings were hand cleared to a minimum depth of 5 feet below ground surface (bgs).

4.2 Cone Penetrometer Test and MIP Investigation – March 2009

An overview of the cone penetrometer test (CPT) and MIP investigation methods used at the Site is presented in the following sections.

4.2.1 CPT/MIP Approach and Application

The combination of CPT and MIP with electrical conductivity provides continuous high resolution data for geology and non-specific CVOCs in-situ. Combining the lithology data with MIP data provides a powerful tool for refining the CSM based on the occurrence and relative concentrations of constituents of concern within the observed hydrostratigraphic framework.

CPT logs are useful in assessing soil types and textural changes in vertical sequence to define the hydrostratigraphic framework for groundwater flow and potential pathways of contaminant transport. CPT logs can be used to correlate stratigraphic facies from one boring location to another. Log patterns can be interpreted with regard to the occurrence of vertical sequences of depositional environments and sedimentary facies. Characteristic upward-coarsening, upward-fining or variable texture patterns of aggradational, progradational, and lateral accretion bedding geometries can be recognized using these data (Galloway and Hobday 1983).

The MIP device contains a semi-permeable membrane that is heated, promoting diffusion of VOCs across the membrane and into an inert carrier gas that travels to up-hole gas-phase detectors. The MIP device has three gas-phase detectors: a photoionization detector (PID), a flame-ionization detector (FID), and an electron capture detector (ECD). Each gas-phase detector responds differently to the presence of VOCs; however, all of the detectors are non-specific to individual compounds and provide qualitative, screening-level data. The FID and PID are best suited for detecting straight-chained and aromatic hydrocarbons, respectively, and the ECD is best suited for detecting CVOCs.

4.2.2 CPT/MIP Investigation Field Methods

LFR retained the services of Gregg Drilling and Testing of Signal Hill, California, to conduct the CPT investigation on March 25, 2009. The MIP investigation was conducted by Vironex of Santa Ana, California, from March 25 to March 27, 2009.

Borings for the CPT/MIP investigation were advanced at seven locations on the Investec Properties, as shown on Figure 2. The CPT/MIP investigation included the following:

- Three MIP borings were advanced to a depth of approximately 15 feet bgs using a direct-push rig. Two borings were located northwest of the Investec building at 147-155 Castilian Drive (Investec Remedial Assessment [IRA]/MIP1 and IRA/MIP2); the third boring was located west of the structure (IRA/MIP3).
- Three collocated CPT and MIP borings were advanced to depths of 30 to 35 feet bgs surrounding the Investec building at 147-155 Castilian Drive. One boring was located north of the building near the former underground storage tank (IRA/MIP4), one boring was located southeast of the building (IRA/MIP6), and one boring was located east of the building (IRA/MIP7).
- One MIP boring was advanced to a depth of 35 feet bgs south of the structure (IRA/MIP5). A CPT boring was not advanced at this location due to the 10-foot lateral setbacks required for the 16-inch diameter subsurface high-pressure natural gas pipeline that parallels Hollister Avenue south of the structure.

The CPT tool was advanced using lengths of 1.75-inch diameter rods and a 20-ton CPT direct-push rig. Following completion of each CPT logging effort, the rods were retrieved from the borehole, the boring was backfilled using hydrated bentonite chips, and the surface was completed to original conditions.

The MIP tool was advanced using a standard 1.75-inch diameter rods and a Geoprobe® 6600 direct-push rig. Before the probe was advanced, the tubing that houses the carrier gas and conductivity cable was connected to the MIP tool and strung through the probe rods. The probe was then pushed to depth at the rate of approximately 1 foot per minute and measurements of conductivity were continuously recorded along with the ECD, PID, and FID readings. Following completion of each MIP log, the rods were retrieved from the borehole, the boring was backfilled using hydrated bentonite chips, and the surface was completed to original conditions.

4.2.3 Confirmation Sampling and Analysis

The CPT and MIP logs from each boring were evaluated to identify specific zones for subsequent soil and groundwater sampling. Samples were collected from additional direct-push borings advanced adjacent to the CPT/MIP boring. Sample boring locations were advanced adjacent to MIP locations IRA/MIP4 through IRA/MIP7, and a total of seven soil samples and nine groundwater samples were collected. These samples were used to quantify CVOC concentrations at the various targeted depths. Soil and grab groundwater samples were collected using a Geoprobe® 6600 direct-push rig operated by Vironex, under the direction of LFR.

Soil samples were retrieved from acetate sleeves liners placed inside the direct-push rods. The portions of the cores retained for laboratory analysis were cut and then capped with Teflon liners and plastic caps. Labels containing the boring number,

sample identification number and depth, project number, sampler name, and time and date of allocation were attached to each sample. The soil samples were stored in an ice-chilled cooler pending delivery to the analytical laboratory. Following sample collection, the borings were backfilled using hydrated bentonite chips, and the surface was completed to match original ground surface conditions.

Grab groundwater samples were collected using two different methods. The majority of the samples were collected using a hydraulically driven, temporary piezometer consisting of a hollow rod assembly with a 5-foot-long stainless steel screen attached at the leading end of the assembly (Hydropunch®). The piezometer was advanced to the desired depth interval based upon the CPT- or EC-derived lithology and the ECD responses. At the targeted depths, the rod assembly was retracted to raise the outer piezometer sleeve, exposing the screen and allowing groundwater to pass through the screen into the piezometer. Polyethylene tubing with a check valve was threaded down the rods, and inertial motion was used to draw groundwater into the tubing for the collection of groundwater samples. The groundwater was then transferred from the tubing directly into preserved laboratory-provided bottles; the bottles were capped and labeled; and the groundwater samples were stored in an ice-chilled cooler pending delivery to the analytical laboratory. At four locations where the inertial motion method did not produce a sufficient volume of water for analysis, temporary wells were constructed of perforated polyvinyl chloride (PVC) pipe. Samples were collected from each well using a new, disposable bailer and decanted directly into preserved laboratory-provided bottles; the bottles were capped and labeled; and the groundwater samples were stored in an ice-chilled cooler pending delivery to the analytical laboratory.

The groundwater and soil samples were transported via courier under chain-of-custody protocol to Oilfield Environmental Compliance of Santa Maria, California, a state-certified laboratory. The samples were analyzed under standard turn-around time for VOCs using U.S. Environmental Protection Agency (EPA) Method 8260B.

4.3 Investigation-Derived Waste

Soil cuttings from the soil borings and sample waste water were stored on the Renco Site in new 55-gallon stainless steel drums that were sealed and marked with non-hazardous waste labels. The sample waste water was disposed of with purge water from the first quarter 2009 quarterly monitoring event. One drum of soil cuttings was also temporarily stored on the Renco Site. After completion of the off-site investigation, the contents of the drum will be sampled, profiled, and transported to an appropriate facility for treatment and/or disposal.

5.0 MARCH 2009 CPT/MIP INVESTIGATION RESULTS AND DISCUSSION

Analytical results for groundwater and soil samples from this investigation and previous CPT/MIP investigations conducted on both the Renco Site and the Investec

Properties are summarized in Tables 1 and 2, respectively. The ECD response curves for the seven IRA/MIP borings and corresponding TCE concentrations from soil and groundwater samples are shown on Figure 2. CPT logs for the three CPT borings are included in Appendix A. Laboratory reports for the confirmatory soil and groundwater samples are included in Appendix B.

5.1 CPT/MIP Results

The CPT and MIP results were examined and compared to previous sampling results in the context of the existing CSM (LFR 2008). Objectives of the investigation were to investigate stratigraphic conditions and contaminant distribution of CVOCs in the stratigraphic units of vadose zone and saturated zone. The CPT and EC logs were used to identify sediment zones, including the upper aquitard, upper interbedded, lower aquitard, and lower interbedded facies. MIP logs were also used to investigate whether contaminant mass was present in the vadose zone and saturated zone. Soil samples were also collected from the various facies and submitted for analysis.

The CPT and EC logs from the March 2009 investigation were consistent with previous results for the seven locations. Figure 4 is a stratigraphic cross section (Cross Section A-A') prepared based on hydrostratigraphic facies interpreted from both recent and previous CPT data. The datum for the cross section is a laterally continuous sand lens within the upper interbedded facies that occurs at approximately 20 feet bgs (datum sand lens). This cross-section was revised from a previous cross-section A-A' (Figure 8, LFR 2008) by adding downgradient borings IRA/MIP4 and IRA/MIP6 to provide additional data along the axis of the CVOC plume.

MIP curves for the ECD response were analyzed for IRA/MIP1 through IRA/MIP7. MIP survey ECD response profiles from the newly installed and previous investigation test locations show the following:

- Data from IRA/MIP1 to IRA/MIP3 indicate that the vadose zone in the upgradient portions of the Investec Properties is not affected by CVOCs and, as such, remedial efforts in the vadose zone are not warranted for that area.
- CVOC contaminants are primarily limited to the upper interbedded facies at the Site (see Figure 4).
- On the former Renco Site and Investec Properties where previous remedial substrate injections have occurred, the ECD response from the MIP logs shows that CVOCs, where present, generally occur only in the lower portion of the upper interbedded facies, below the datum sand lens, and decrease rapidly with depth toward the lower aquitard facies.
- In areas where remedial substrate injections have been conducted, a more uniform profile of relatively low CVOC concentrations is observed within the upper interbedded facies (IRA/MIP3, IRA/MIP4, and IRA/MIP7).

- A notable exception is the IRA/MIP4 location, where elevated CVOC concentrations were found in shallow groundwater (see Section 5.1.1); this appears indicative of a potential source area on the Investec Properties.

5.2 Revised Conceptual Site Model

The results of the remedial assessment activities conducted on the Investec Properties are in general agreement with the existing CSM (LFR 2008). Four hydrostratigraphic facies have been identified beneath the vadose zone: 1) upper aquitard facies, 2) upper interbedded facies, 3) lower aquitard facies, and 4) lower interbedded facies. These facies represent a fluvial system related to the regional drainage system and topography.

The upper aquitard facies is a thin (approximately 2 feet thick) but laterally continuous silty clay layer that occurs at or below 10 feet bgs. The upper interbedded facies extends from the base of the upper aquitard facies to approximately 30 feet bgs. Sediments of this facies consist predominately of silt and clayey silt with interbedded, fluvial deposited, fine-grained sand lenses. The sand lenses are generally thin (less than 3 feet thick) and elongated (up to 1,000 feet), with a northwest-southeast orientation consistent with the regional drainage direction. These thin, elongated sand lenses generally pinch out laterally over short distances (less than 300 feet in a northeast-southwest orientation). At the base of the upper interbedded facies, a laterally continuous fine-grained layer (lower aquitard facies) occurs between approximately 30 to 35 feet bgs; this layer apparently functions as a barrier to deeper vertical transport of contaminant mass. Beneath the lower aquitard is the lower interbedded facies, which has soil characteristics similar to the upper interbedded facies.

Figure 4 is a stratigraphic cross section (Cross Section A-A') prepared based on hydrostratigraphic facies interpreted from newly collected and previous CPT data. The datum for the cross section is a somewhat laterally continuous sand lens within the upper interbedded facies that occurs at approximately 20 feet bgs (datum sand lens). This cross-section was revised from a previous cross-section A-A' (Figure 8, LFR 2008) by adding downgradient borings IRA/MIP4 and IRA/MIP6 to provide additional data along the axis of the CVOC plume.

Sand lenses within the upper interbedded facies (and in particular the datum sand lens on Cross Section A-A') appear to be preferential pathways for groundwater and contaminant mass transport; however, the lateral extent of these sand lenses is also limited by the depositional environment. Limited diffusion of contaminant mass into fine-grained soils adjacent to the sand lenses appears to have occurred as well.

6.0 REMEDIAL INJECTION WORKPLAN

LFR's conceptual remedial approach for CVOCs in groundwater at the Investec Properties and possible downgradient areas was approved by the RWQCB in a letter to

LFR and Investec dated December 10, 2008 (RWQCB 2008). This approach involves the use of enhanced reductive dechlorination (ERD), which the RWQCB has approved in three previous work plans as part of the RAP for the Site. This remedial injection workplan is an addendum to that RAP.

The assessment results described above further defined the geologic strata beneath the Investec Properties, as well as the nature and distribution of chemical constituents in the subsurface, and enabled the development of the following injection strategy for enhanced reductive dechlorination of affected groundwater. Based upon the effective remedial experience on the Renco Site, LFR anticipates that the proposed substrate injections described herein are both appropriately targeted and sufficient in mass to effectively remediate non-source TCE areas in the observed water quality within the observed geochemical context. Source zones that appear to be present on the Investec Properties may require subsequent characterization and reagent application, as did the Renco source zones. In accordance with the directives from the RWQCB, and the RWQCB's characterization of future enforcement orientation, LFR is proceeding with remedial efforts to address CVOC releases from the Renco Site, as well as CVOCs on the downgradient Investec Properties (see Figure 5), even though this downgradient contamination appears to originate primarily from the Investec Properties. LFR will submit an addendum to this report to provide similar analysis and design approach, if warranted, for the Airport and Sares Regis properties.

In addition to the efforts on the Investec Properties, LFR is recommending an additional limited application at the Renco Site to address an apparent source zone that the prior substrate injection appears to have diminished, but not to concentrations observed in the other non-source zones on the Renco Site. Monitoring wells MW-9 and TW-1R have CVOC concentrations in excess of 200 parts per billion (ppb) and 1,500 ppb, respectively; these areas appear more resilient and represent apparent historical source zones. Figure 6 depicts the recommended injection locations at the Renco Site.

6.1 Overview of Enhanced Reductive Dechlorination

The anaerobic bioremediation technique known as ERD involves the delivery of a degradable source of organic carbon into the contaminated aquifer to achieve four basic goals:

1. *Overcome the continuous electron acceptor supply:* This includes oxygen, nitrate, and other electron acceptors that tend to support a more aerobic microbial community.
2. *Produce molecular hydrogen through fermentation:* Molecular hydrogen is a product of fermentation and is used as an electron donor by dechlorinating bacteria.

3. *Achieve complete dechlorination of the target contaminants:* Dechlorinating bacteria use the hydrogen produced through fermentation as an electron donor and the chlorinated alkenes or alkanes as electron acceptors. Hydrogen atoms are substituted for chlorine atoms in the dehalorespiration process, resulting in a step-wise chemical reduction of the chlorinated solvent or other halogenated organic compounds, which for PCE and TCE follows the pathway:



4. *Achieve dissolution of nonaqueous phase contaminant-mass:* Under natural conditions, the dissolution of hydrophobic organic compounds (making them available for treatment) is very slow, allowing groundwater plumes to persist for many decades if the dissolution rate cannot be enhanced. With ERD, dissolution enhancement is achieved through a variety of mechanisms.

6.2 Substrate Selection

The RAP and subsequent RAP Amendments for the Renco Site concluded that subsurface injection of commercial carbon substrates to enhance rates of anaerobic CVOC biodegradation was the most feasible approach for groundwater remediation (LFR 2005b, 2006). Multiple phases of injection, using several different commercial products (HRC[®], HRC-X[®], lactate, EOS[®], and EHC[™]) have been previously conducted on both the Renco Site and the Investec Properties. Historical injection areas are shown on Figure 3.

The most recent phase of groundwater remediation occurred in July-August 2006, when emulsified oil substrate EOS[®] and EHC[™] reagents were injected into the subsurface on the Renco Site, north and east of the main building. EOS[®] was injected in downgradient, non-source zones and EHC[™] was injected in suspected source zones. Quarterly monitoring results for the Renco Site have shown substantial decreases in TCE concentrations since the 2006 injections, particularly in the downgradient areas of the property. During the most recent event (March 2009) TCE concentrations were at or near the lowest concentrations on record for most on-site wells (LFR 2009) and were below remedial action goals in most monitoring wells on the Renco Site.

The successful results in downgradient areas of the Renco Site have been primarily attributed to the effects of EOS[®] and EHC[™] injections (LFR 2009). Portions of the CVOC plume under the Investec Properties have been attributed to historical releases from the Renco facility, and the assessment activities described above have also indicated that EOS[®] (an emulsified vegetable oil product) has been effective in reducing TCE concentrations in the apparent transmissive sandy layer (datum sand layer) that appears to be contiguous between the properties. Vegetable oils are insoluble in water and so must be emulsified to form micron-size droplets to support their delivery and distribution in an aquifer. The oils are comprised of triglycerides that slowly undergo hydrolysis to release soluble glycerol and long-chain fatty acids that are anaerobically fermented to hydrogen and organic acids (e.g., acetate). This provides a slow, steady

supply of organic carbon that can fuel reductive dechlorination over a period of two to three years. Some commercially available oil substrates (e.g., EOS®) also include lactate (a source of more readily degradable carbon), nutrients, and/or buffering agents to further enhance the stimulation of subsurface microbes.

Emulsified vegetable oil (EVO) was previously approved by the RWQCB (2005, 2006) for use at the Renco Site. In addition, the previously implemented pilot study of different substrates indicated that all substrates tested successfully enhanced reductive dechlorination processes. In accordance with the RWQCB approved RAP and RAP addendums, and based on its documented success on the Renco Site, LFR proposes to use an EVO substrate (EOS® 598 B42, RNAS™ or SRS™; see www.terrasystems.net for documentation and verification) to support enhanced reductive chlorination on the Investec Properties.

6.3 Injection Program Design

A summary of the proposed emulsified oil injection program is presented in the following sections. This includes the basis for determining the injection network configuration, an initial estimate of the injection volume and oil loading, information regarding the field verification test, and the full-scale application.

6.3.1 Injection Network Configuration

The proposed injection locations on the Investec Properties were selected based on the distribution of CVOCs detected in groundwater monitoring wells on the Investec Properties. Based on these data, the area of affected groundwater was estimated to be approximately 175,000 square feet (Figure 5). As observed during the MIP ECD investigation, the depth interval of CVOC-affected groundwater varies across the Investec Properties:

- In the upgradient portions of the Investec Properties, the affected groundwater interval extends from approximately 25 to 30 feet bgs.
- In the middle portions of the Investec Properties, in the vicinity of the apparent Investec source(s), and further south near assessment location IRA/MIP5, the affected groundwater interval extends from approximately 15 to 30 feet bgs.
- In the vicinity of location IRA/MIP4, the affected groundwater interval extends from the base of the vadose zone (approximately 13 feet bgs) to approximately 30 feet bgs.
- In the downgradient portion of the Investec Properties, to the southeast and east, the affected groundwater interval was determined to be approximately 24 to 29 feet bgs.

A grid of injection locations (Figure 5) was developed based on the distribution outlined above. As depicted, it is anticipated that the injection points will be spaced approximately 25 feet apart (on center) to provide perpendicular coverage across the

accessible areas of the plume. The vertical intervals over which the injections will take place were then selected based on the impacted horizon observed during the MIP ECD investigation.

Figure 6 shows the proposed injection locations on the Renco Site based upon the observed concentrations from the March 2009 monitoring event.

6.3.2 Proposed Injection Volume and Substrate Loading Calculations

Appendix C contains the design parameters that provide the rationale and estimations for the selected EVO application design. An estimation of the electron demand of the observed water quality is performed as well as oil retention methodology to evaluate whether both an adequate mass of substrate and coverage of substrate are achieved in the application.

As reflected in the Electron Demand Approach estimation calculations, based upon the distribution and quantity of affected groundwater, LFR estimates that a minimum of 679 gallons of EVO would be required to create the reductive environment required to facilitate the biological destruction of the observed CVOCs.

As reflected in the Oil Retention Approach estimation calculations in Appendix C, the primary factor that typically controls EVO loading is retention of the oil on the aquifer sediments during injection (ESTCP 2006). As an oil-in-water emulsion is injected, the droplets interact with sediment surfaces and adhere. The sediment surfaces gradually become coated with a layer of oil that provides a carbon source for reductive dechlorination, typically without significantly affecting the permeability of the formation. As shown in the calculation estimates, assuming approximately 75 percent of the average 5-foot application zone would prove receptive to substrate injection (we believe that this is a conservative over estimation) and a distance of 25 feet between injection locations, and using literature values for mobile porosity and oil retention, approximately 7,072 gallons of EVO substrate need to be injected. This equates to approximately 23 gallons per transmissive foot, at a water:EVO dilution ratio of 15:1, to provide the necessary coverage on the accessible portions of the Investec Properties. Figure 5 shows the distribution and number of injection locations.

Concentrated EVO will be mixed with municipal supply water from the City of Goleta to create the dilute injection solution. Mixing will occur via portable equipment and will be distributed to the injection point(s) through a metering manifold. Vironex's standard operating procedures for emulsified oil substrate injection are presented in Appendix D. Additional temporary monitoring points (screened across the same monitoring interval) for sampling during the test injection may be installed to evaluate the effectiveness of the injection efforts, as deemed necessary in the field.

As shown on Figure 6, the proposed Renco injection consists of twenty-five injection locations, with twenty-two locations planned for three 5-foot injection intervals and three locations planned for four 5-foot injection intervals. The injection rates and

dilutions will be implemented as described above for the Investec applications, with a total volume of EVO substrate estimated at 1,860 gallons.

6.3.3 Full-Scale Injection

Conceptually, a total of 157 injection locations are proposed on the Investec Properties to distribute the EOS® (Figure 5). These injection locations are distributed across the Investec Properties, as summarized below:

- nine injections in the vicinity of the apparent Investec source zone, with 20 feet of injection length
- 60 injections of 15-foot injection length, generally in the mid-property area, with a denser application along the property boundary downgradient of the Investec building
- 88 injections of 5-foot injection length on the remainder of the property, with a denser application on the down gradient boundary

Subject to potential modifications based upon field observations and constraints, for each 5-foot injection interval, it is anticipated that approximately 23 gallons of EVO will be mixed with 350 gallons of water to create approximately 370 gallons of a 1:15 dilute solution. Based on the number of 5-foot injection intervals currently planned, a total of approximately 106,100 gallons of dilute EVO solution is estimated to be injected into the shallow aquifer underlying the Investec Properties.

The Renco application will address the location believed to be the immediate vicinity of the historical TCE release location that continues to maintain elevated concentrations of CVOCs. As shown on Figure 6, EVO injections are planned at twenty-five locations with a total of eighty 5-foot injection intervals. Similar injection volumes and dilutions are anticipated for the Renco injections as outlined above for the Investec injections.

Based upon our experience at Renco and other similar facilities, we anticipate that initial displacement of groundwater during injection will be primarily upward, creating a temporary mound which will quickly equilibrate after the injection is complete. The potential for significant lateral displacement of contaminants through possible preferential flow pathways will be limited by the precautions being taken in injection management, as well as by injecting relatively low volumes at each point. The last Renco injection rate was 10 gallons per minute (gpm); the proposed applications have been reduced to 3 gpm to diminish the potential for formation fracturing and to increase the likelihood of EVO placement into the identified more transmissive and affected zones. Fluid displacement during substrate injection does not transport significant amount of contaminant mass because, in nearly all settings, most of the contaminant mass is stationary (sorbed on soil particles).

Based on the historical CVOC concentrations observed at both the Renco Site and the Investec Properties, LFR anticipates similar results in successfully reducing CVOC concentrations in similar timeframes on the Investec Properties as were observed on the

Renco Site. As discussed above, some areas in the Investec Properties appear to contain historical sources which could typically prove more resilient and persistent than non-source zones. The presence of any such additional source zones on the Investec Properties would be indicated by persistent elevated CVOC concentrations or repeated rebound of CVOC concentrations in groundwater following implementation of LFR's proposed remedial efforts on the Investec Properties. The RWQCB has acknowledged that remediation of any such additional sources is not the responsibility of LFR or Renco.

7.0 PROPOSED GROUNDWATER MONITORING ACTIVITIES

In order to evaluate the efficacy of the above remedial injection program, the following remedial process groundwater monitoring plan is proposed. Groundwater monitoring at the Investec Properties is not currently included as part of the groundwater monitoring plan for the Renco Site. LFR proposes initial quarterly groundwater sample collection from monitoring wells MW-10, MW-11, MW-12, MW-13, MW-14, MW-16, MW-17, and MW-18 (Figure 3). Laboratory groundwater sample analyses will include VOCs, methane, ethane, and ethene using passive diffusion bag (PDB) sampling methodology. Pertinent field-measured parameters will include total organic carbon (TOC), pH, specific conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO). Additional parameters that may be considered for supplemental analysis include volatile fatty acids, other electron acceptors or their reduced byproducts (nitrate, sulfate, dissolved iron), chloride, or other parameters that might support the performance evaluation.

Prior to initiating the remediation program, a baseline sampling event will involve analysis of all the parameters noted above (including the supplemental parameters), plus alkalinity. Following one year of quarterly monitoring, the monitoring frequency will be reduced to semi-annual in the second year. Reduction in the number of wells to be sampled will be considered after the first two sampling events, as appropriate.

The results from the VOC and light hydrocarbon analyses (ethane and ethene) will be used to verify the onset of complete reductive dechlorination of TCE through intermediate transformation products (cis-1,2-dichloroethene [cDCE] and vinyl chloride [VC]) to ethane and ethene. As the biotransformation of CVOCs continues, overall trends will be evaluated to determine remedial progress. The methane and pH results will be used to confirm development of a sufficiently anaerobic environment within an acceptable range of pH to support optimal dechlorination. TOC results will be used to evaluate longevity of the substrate and confirm the availability of sufficient degradable organic carbon to support the process.

8.0 PROPOSED SCHEDULE

Following approval of this proposed remedial injection workplan, LFR will immediately begin planning and scheduling with representatives from the Investec Properties. LFR anticipates that substrate injections will commence in August or September 2009. LFR also anticipates that remaining downgradient assessment activities will be completed in July 2009, and that a downgradient assessment report will be submitted in August 2009, unless unforeseen delays are encountered. LFR would like to consolidate all injection efforts into one mobilization, and will report on the need for and feasibility of conducting any additional injections on the remaining downgradient properties.

9.0 LIMITATIONS STATEMENT

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty or guarantee, express or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in other parts of the Site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations or standards.

10.0 REFERENCES

- California Regional Water Quality Control Board, Central Coast Region (RWQCB).
2001. Spills Program: 26 Coromar Drive, Goleta (Renco Encoders, Inc.);
Request for Solvent Cleanup in Soil and Groundwater, and for Groundwater
Monitoring. March 8.
- 2005. Spills Program: Renco Encoders, Inc., 26 Coromar Dr., Goleta -
Amendment Review. October 24.
- 2006. Spills Program: Renco Encoders, Inc., 26 Coromar Dr., Goleta -
Second Remedial Action Plan Amendment Review and Concurrence. July 6.
- 2008a. Site Cleanup Program: Renco, 26 Coromar Drive, Goleta - Response
to Additional Assessment Workplan. January 4.
- 2008b. Site Cleanup Program: Renco, 26 Coromar Drive and Investec
Properties, 82 Coromar Drive and 147-153 Castilian Drive, Goleta -
Membrane Interface Probe Investigation and Groundwater Monitoring
Reports. August 27.
- Environmental Security Technical Certification Program (ESTCP). 2006. Protocol for
Enhanced In Situ Bioremediation Using Emulsified Edible Oil. U.S.
Department of Defense. May.
- LFR Inc. (LFR). 2001. Remedial Action Plan, Renco Encoders Site, 26 Coromar
Drive, Goleta, California. February 13.
- 2005a. Environmental Data Interpretation for the Renco Encoders Facility
(Renco) and Request for Assistance to Resolve Off-Site Concerns from the
Nexus Products Properties at 82 Coromar Drive and 147-153 Castilian
Drive, Goleta, California (Nexus). March 9.
- 2005b. Phase II Remedial Action Plan (RAP) Amendment for the Renco
Encoders Site, 26 Coromar Drive, Goleta, California. August 12.
- 2006. Second Phase II Remedial Action Plan (RAP) Amendment for the Renco
Encoders Site, 26 Coromar Drive, Goleta, California. March 22.
- 2008. Membrane Interface Probe Investigation and Groundwater Monitoring
Report, Renco Encoders Property (26 Coromar Drive) and Investec
Properties (82 Coromar Drive and 147 to 153 Castilian Drive), Goleta,
California. April 4.
- 2009. 2009 First Quarter, Groundwater Monitoring Report, Renco Encoders
Site, 26 Coromar Drive, Goleta, California. April 30.

Padre Associates Inc. (Padre). 2007. Results of Site Assessment Activities, Nexxus Properties, 82 Coromar Drive, and 147 Through 165 Castilian Drive, Goleta, Santa Barbara County, California. May.

----- 2008. Report of Supplemental Site Assessment Activities, Investec Properties, 82 Coromar Drive, and 147 Through 165 Castilian Drive, Goleta, Santa Barbara County, California. March.

Payne, Fred C., Joseph A. Quinnan, Scott T. Potter. 2008. Remediation-Hydraulics. CRC Press.

TN & Associates. 2007. Workplan for Additional Characterization and Installation of a Long-Term Monitoring Well Network. Raytheon B-2 Facility, 75 Coromar Avenue, Goleta, California. May.

----- 2008. July 2008 Groundwater Monitoring Event, Building B-2 Project, 75 Coromar Drive, Goleta, California. September 12.

TABLES

Table 1
Summary of Hydroponch Groundwater Sample Results
Remedial Assessment
LFR 002-08031-20004

Sample ID	Screen Interval (feet/bags)	Sample Date	1,1,1-TCA (µg/L)	TCE (µg/L)	TCFM (µg/L)	1,1-DCE (µg/L)	1,1-DCA (µg/L)	PCE (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	CFC-113 (µg/L)	1,1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	Vinyl Chloride (µg/L)	Chloro-benzene (µg/L)	Benzene (µg/L)	Xylenes (µg/L)	Other Chemicals Detected (µg/L)	Total VOCs (µg/L)
Investigative Site (LFR) - March 2009																			
HP-IRA-MIP-04-15	13-16**	3/27/09	<0.50	1,300	1.7	34	20	0.63	400	40	<0.50	<0.50	<0.50	36	<0.50	0.61	<0.50		1,833
HP-IRA-MIP-04-18	17-20	3/27/09	<0.50	1,300	3.3	64	40	<0.50	340	9.0	<0.50	2.1	<0.50	44	<0.50	<0.50	<0.50		1,802
HP-IRA-MIP-04-24	22-25	3/27/09	<0.50	920	2.3	83	40	<0.50	240	13	<0.50	2.0	<0.50	48	<0.50	<0.50	<0.50		1,345
HP-IRA-MIP-05-14*	11-16**	3/27/09	<0.50	220	<0.50	8.4	7.6	<0.50	210	67	<0.50	<0.50	<0.50	2.5	<0.50	<0.50	<0.50		516
HP-IRA-MIP-05-19*	19-21**	3/27/09	<0.50	380	<0.50	6.3	5.8	0.63	130	28	<0.50	<0.50	<0.50	2.7	<0.50	<0.50	<0.50		653
HP-IRA-MIP-05-28*	26-29	3/27/09	<0.50	2.8	<0.50	2.1	2.7	<0.50	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		6
HP-IRA-MIP-06-18*	15-20**	3/27/09	<0.50	24	<0.50	2.1	2.7	<0.50	180	140	<0.50	<0.50	<0.50	83	<0.50	<0.50	<0.50		412
HP-IRA-MIP-06-27*	25-29	3/27/09	<0.50	450	<0.50	32	18	<0.50	72	3.4	<0.50	<0.50	<0.50	1.1	<0.50	<0.50	<0.50		577
HP-IRA-MIP-07-27*	26-29	3/27/09	<0.50	16	<0.50	2.7	2.0	<0.50	26	4.1	<0.50	<0.50	<0.50	0.95	<0.50	<0.50	<0.50		577
Remedial Site (LFR) - February 2008																			
HP-MIP13-1-20	20-23	2/14/08	<0.50	9.9	<0.50	<0.50	<0.50	<0.50	2.9	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76	Tot: 1.2	16
HP-MIP13-2-25	25-26	2/14/08	<0.50	97	<0.50	6.4	2.0	0.63	28	22	<0.50	<0.50	<0.50	3.9	<0.50	<0.50	0.68	Chloro: 0.91; Tot: 1.0	161
HP-MIP13-3-31	31-34	2/14/08	<0.50	65	<0.50	3.0	3.7	<0.50	40	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.89	Chloro: 1.4; Tot: 1.7	117
HP-MIP14-1-11	11-14	2/15/08	<0.50	39	<0.50	<0.50	<0.50	<0.50	5.4	1.0	<0.50	<0.50	<0.50	4.1	<0.50	<0.50	<0.50		50
HP-MIP14-2-17	17-20	2/15/08	<0.50	0.88	<0.50	<0.50	<0.50	<0.50	2.1	0.74	<0.50	<0.50	<0.50	4.6	<0.50	<0.50	<0.50		49
HP-MIP14-3-28	26-29	2/15/08	<0.50	0.57	<0.50	0.88	<0.50	<0.50	2.1	<0.50	<0.50	<0.50	<0.50	0.50	<0.50	<0.50	<0.50		9
HP-MIP15-1-11	11-14	2/15/08	<0.50	6.8	<0.50	<0.50	<0.50	<0.50	10	11	<0.50	<0.50	<0.50	6.7	<0.50	<0.50	1.8	Chloroethane: 85; Tot: 0.65; 1,2,4-imb: 0.88	221
HP-MIP15-2-17.5	17.5-20.5	2/15/08	<0.50	190	<0.50	8.2	3.8	0.64	39	1.9	<0.50	<0.50	<0.50	4.6	<0.50	<0.50	<0.50		290
HP-MIP16-1-12	12-15	2/15/08	<0.50	190	<0.50	4.4	11	<0.50	180	0.97	<0.50	<0.50	<0.50	110	<0.50	<0.50	1.8	1,2,4-imb: 0.94; 1,3,5-imb: 0.50	470
HP-MIP16-2-17	17-20	2/15/08	<0.50	350	<0.50	20	19	1.1	260	1.9	<0.50	0.61	<0.50	430	<0.50	<0.50	1.2	DCDFM: 0.64; 1,2,4-imb: 0.71	1,075
HP-MIP16-3-22*	22-25	2/15/08	<0.50	1.80	<0.50	4.8	12	<0.50	62	3.2	<0.50	<0.50	<0.50	810	<0.50	<0.50	0.82	Tot: 0.89	1,074
HP-MIP17-1-8*	9-12	2/14/08	<0.50	2.3	<0.50	0.75	1.5	<0.50	16	8.3	<0.50	<0.50	<0.50	3.2	<0.50	<0.50	1.0	Tot: 1.6	34
HP-MIP17-2-15*	15-18	2/14/08	<0.50	13	<0.50	5.5	12	<0.50	180	21	<0.50	<0.50	<0.50	4.8	<0.50	<0.50	0.69	Chloro: 1.7; Tot: 0.98	263
HP-MIP17-3-28*	28-31	2/14/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.80	<0.50	<0.50	<0.50	<0.50	2.2	<0.50	<0.50	0.67	Chloro: 1.3; Tot: 1.3	6
Investigative Site (Padre) - February 2008																			
HP-18-18	15-18	2/11/08	<0.50	720	1.3	31	18	<0.50	160	23	<0.50	0.64	<0.50	3.1	<0.50	0.60	2.4	Ethylbenzene: 0.59	961
HP-18-28	25-28	2/11/08	<0.50	6,000	<0.50	240	14	0.91	42	14	<0.50	1.6	<0.50	6.1	<0.50	<0.50	0.88		7,114
HP-18-20	19-21	2/12/08	<0.50	490	<0.50	4.6	5.3	<0.50	50	0.90	<0.50	<0.50	<0.50	8.2	<0.50	<0.50	0.81		657
HP-18-32	31-34	2/12/08	<0.50	500	<0.50	4.3	5.6	<0.50	61	11	<0.50	<0.50	<0.50	0.64	<0.50	<0.50	1.1		612
HP-18-40	38-42	2/12/08	<0.50	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		2
HP-18-24	22-26	2/12/08	<0.50	350	<0.50	27	16	<0.50	39	9.0	<0.50	0.83	<0.50	<0.50	<0.50	<0.50	<0.50		442
HP-18-18	16-20	2/12/08	<0.50	100	<0.50	4.9	2.5	<0.50	44	1.9	<0.50	<0.50	<0.50	17	<0.50	<0.50	0.81		221
HP-14-28	26-30	2/12/08	<0.50	180	<0.50	4.0	1.9	<0.50	29	3.1	<0.50	<0.50	<0.50	7.8	<0.50	<0.50	2.0	Tot: 1.4; 1,3,5-imb: 0.52	150
HP-15-24	22-27	2/13/08	<0.50	190	<0.50	3.4	18	<0.50	53	3.0	<0.50	<0.50	<0.50	1.2	<0.50	<0.50	1.8	Tot: 2.0	150
HP-15-22	20-24	2/13/08	<0.50	180	<0.50	14	18	<0.50	26	3.1	<0.50	0.80	<0.50	<0.50	<0.50	<0.50	1.4	Tot: 1.9	223
HP-17-16	14-18	2/13/08	<0.50	180	<0.50	9.9	13	<0.50	40	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	Tot: 1.8	246
HP-17-32	30-34	2/13/08	<0.50	1.5	<0.50	<0.50	<0.50	<0.50	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	Chloro: 0.78; Tot: 1.4	6
HP-18-22	20-24	2/13/08	<0.50	120	<0.50	16	15	<0.50	17	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.86	Tot: 1.4	172
Investigative Site (Padre) - March 2007**																			
HP-031907-1	11-14	3/19/07	<0.5	402	<0.5	10.0	4.60	<0.5	38.7	3.30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		460
HP-031807-2	7-10	3/19/07	<0.5	118	<0.5	<0.5	1.00	<0.5	4.70	1.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		125
HP-031807-3	11-14	3/19/07	<0.5	1,270	<0.5	84.2	26.0	<0.5	314	20.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		1,684
HP-031907-4	11-14	3/19/07	<0.5	399	<0.5	3.90	6.60	0.70J	71.1	11.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		493
HP-031907-5	11-14	3/19/07	<0.5	908	<0.5	26.3	20.8	<0.5	296	3.90	<0.5	0.80J	<0.5	9.80	<0.5	<0.5	<0.5		1,265
HP-031907-6	11-14	3/19/07	<0.5	285	<0.5	<0.5	1.00	0.70J	8.30	0.70J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		235
HP-031907-7	7-10	3/19/07	<0.5	127	<0.5	<0.5	1.30	<0.5	5.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		193
HP-031907-8	7-10	3/19/07	<0.5	160	<0.5	<0.5	2.70	<0.5	18.3	10.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		192

Notes:
 bgt: below ground surface
 Tot: Toluene
 Chloro: Chloroform
 TMB: 1,1,1-trichloroethane (Freon 11)
 µg/L: micrograms per liter
 TCA: Trichloroethane
 TCE: Trichloroethene
 DCE: Dichloroethane
 DCA: Dichloroethane
 PCE: Tetrachloroethane
 TCFM: Trichlorofluoromethane (Freon 11)
 CFC-113: 1,1,1-trichloro-1,2,2-difluoroethane
 DCFM: Dichlorodifluoromethane
 <: Detection less than indicated laboratory reporting limit
 18: Detection greater than the laboratory reporting limit
 1,3,5-imb = 1,3,5-trimethylbenzene

*: Not analyzed
 J: result is greater than the method detection limit (mdl) but less than the practical quantization limit (pql)
 All samples analyzed using Environmental Protection Agency (EPA) Method 8260B
 March 2007 samples analyzed by American Environmental Testing Laboratories (AETL), Burbank, CA
 February 2008 and March 2009 samples analyzed by Oilfield Environmental & Compliance (OEC), Santa Maria, CA
 **: public Associates, Inc., 2007, Results of Site Assessment Activities, Various Properties, 82 Coronado Drive, and 147 through 165 Cauffman Drive, Santa Barbara County, California, Table 2, May.

** : Sampled with disposable bailer from temporary well

Table 2
 Summary of Historic Soil Analytical Results - Investec Properties
 Rencco-Investec Remedial Assessment
 LFR 002-08031-20/004

Sample ID	Sample Depth (feet/bgs)	Sample Date	1,1,1-TCA (mg/kg)	TCE (mg/kg)	TCFM (mg/kg)	1,1-DCE (mg/kg)	1,1-DCA (mg/kg)	PCE (mg/kg)	cis-1,2-DCE (mg/kg)	trans-1,2-DCE (mg/kg)	CFC 113 (mg/kg)	1,1,2-TCA (mg/kg)	1,2-DCA (mg/kg)	Vinyl Chloride (mg/kg)	Chlorobenzene (mg/kg)	Benzene (mg/kg)	Xylenes (mg/kg)	TPH-Gas (C4-C12) (mg/kg)	
Investec Site (LFR) - March 2009																			
SS-IRAMIP-04-6'	6	3/27/09	<0.0050	0.0073	<0.0050	<0.0050	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-04-10'	10	3/27/09	<0.0050	0.012	<0.0050	<0.0050	<0.0050	<0.0050	0.0077	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-05-5'	5	3/27/09	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-05-8'	8	3/27/09	<0.0050	0.028	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-06-3'	3	3/27/09	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-07-7.5'	7.5	3/27/09	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
SS-IRAMIP-07-14'	14	3/27/09	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
Investec Site (Padre) - February 2008																			
GP-9-10	10	2/11/08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10
GP-9-15	15	2/11/08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
GP-10-10	10	2/11/08	<0.0050	0.015	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-10-30	30	2/11/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-11-10	10	2/11/08	<0.0050	0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-11-25	25	2/11/08	<0.0050	0.052	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-12-5	5	2/12/08	<0.0050	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-12-10	10	2/12/08	<0.0050	0.0074	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-13-10	10	2/12/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-13-29	29	2/12/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-14-5	5	2/12/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-14-10	10	2/12/08	<0.0050	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-15-10	10	2/12/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-15-29	29	2/12/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-16-10	10	2/13/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-16-25	25	2/13/08	<0.0050	0.114	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-17-5	5	2/13/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-17-10	10	2/13/08	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-18-10	10	2/13/08	<0.0050	0.0080	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
GP-18-25	25	2/13/08	<0.0050	0.035	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-
Investec Site (Padre) - January & March 2007*																			
SV-3-5	5	1/24/07	<0.005	0.00873J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-4-6	6	1/24/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-5-6	6	1/24/07	<0.005	0.00579J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	0.00203J	<0.002	-
SV-6-6	6	1/24/07	<0.005	0.0275	<0.005	<0.005	<0.005	<0.005	0.00692J	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-7-6	6	1/24/07	<0.005	0.0266	<0.005	<0.005	<0.005	<0.005	0.00586J	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-8-6	6	1/24/07	<0.005	0.0745	<0.005	<0.005	<0.005	<0.005	0.0768	0.00929J	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-9-3	3	1/24/07	<0.005	0.102	<0.005	<0.005	<0.005	<0.005	0.0365	0.0251	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-9-6	6	1/24/07	<0.005	0.114	<0.005	<0.005	<0.005	<0.005	0.0197	0.0108	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-10-6	6	1/24/07	<0.005	0.0422	<0.005	<0.005	<0.005	<0.005	0.005J	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-13-6	6	1/24/07	<0.005	0.0405	<0.005	<0.005	<0.005	<0.005	0.0356	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-
SV-14-6	6	1/24/07	<0.005	0.0443	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	0.00406J	<0.002	-
GP-1-2	2	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0263	<0.005	-	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	<0.002	-

Table 2
 Summary of Historic Soil Analytical Results - Investec Properties
 Renco-Investec Remedial Assessment
 LFR 002-08031-20/004

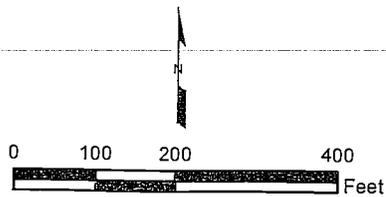
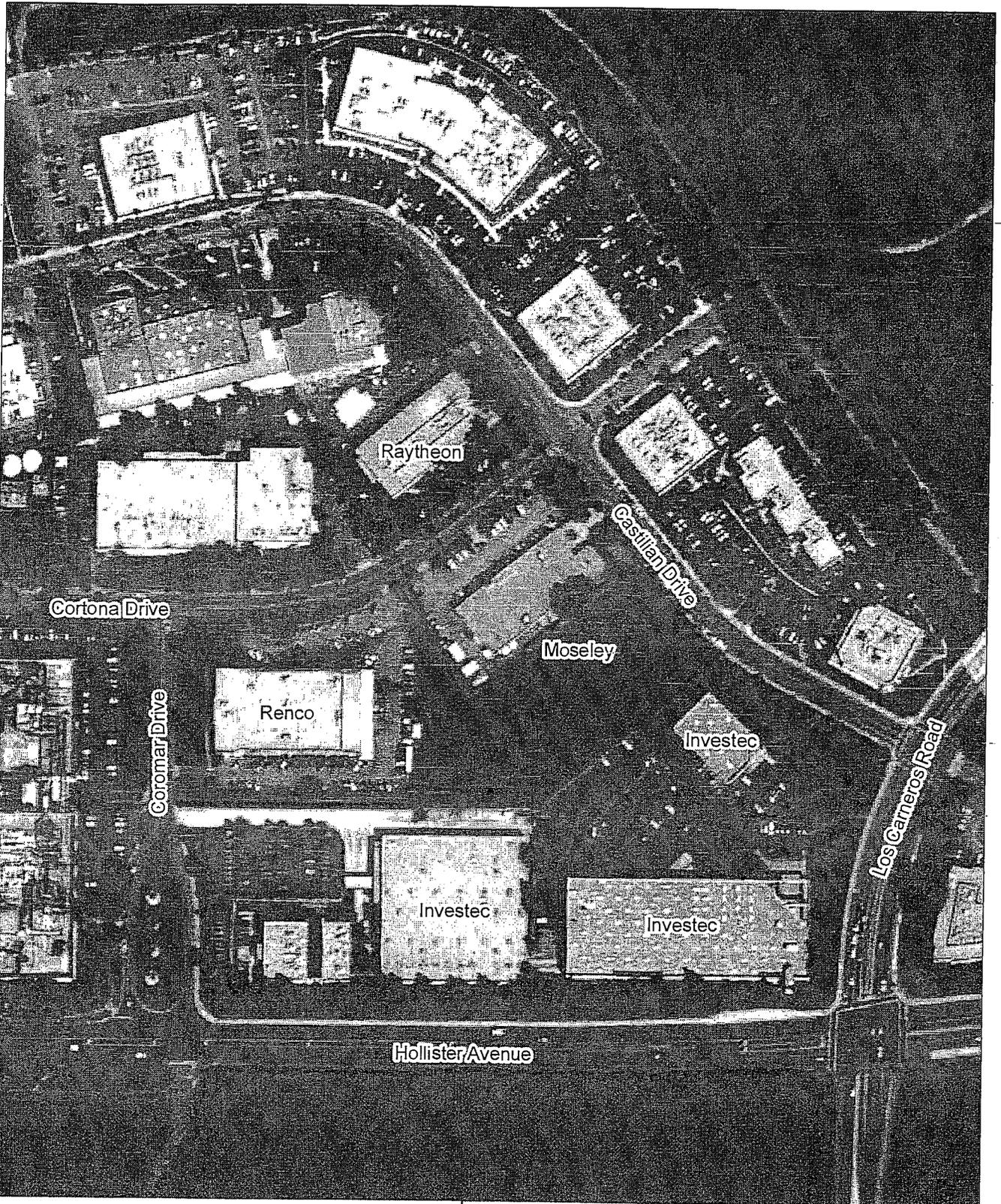
Sample ID	Sample Depth (feet/bgs)	Sample Date	1,1,1-TCA (mg/kg)	TCE (mg/kg)	TCFM (mg/kg)	1,1-DOE (mg/kg)	1,1-DCA (mg/kg)	PCE (mg/kg)	cis-1,2-DCE (mg/kg)	trans-1,2-DCE (mg/kg)	CFC 113 (mg/kg)	1,1,2-TCA (mg/kg)	1,2-DCA (mg/kg)	Vinyl Chloride (mg/kg)	Chloro-benzene (mg/kg)	Benzene (mg/kg)	Xylenes (mg/kg)	TPH-Gas (C4-C12) (mg/kg)	
GP-1-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0434	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-1-6	6	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0386	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-1-8	8	3/19/07	<0.005	0.0201	<0.005	<0.005	<0.005	<0.005	0.06883J	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-2-4	4	3/19/07	<0.005	0.0158	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-2-8	8	3/19/07	<0.005	0.0128	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-3-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-3-8	8	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0997	0.0542	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-4-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
Investec Site (Padre)- January & March 2007 (continued)*																			
GP-4-8	8	3/19/07	<0.005	0.00534J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-5-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0658	0.0132	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-5-8	8	3/19/07	<0.005	0.0123	<0.005	<0.005	<0.005	<0.005	0.0281	0.00897J	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-6-3	3	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-6-8	8	3/19/07	<0.005	0.108	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-7-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-7-8	8	3/19/07	<0.005	0.0148	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-8-4	4	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
GP-8-8	8	3/19/07	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	<0.015	<0.005	<0.002	<0.002	--	
Investec Site (LFR)- January 2004																			
MW-14-10	10	1/15/04	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
MW-15-10	10	1/15/04	<0.002	0.0041	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
MW-16-5.0	5	1/15/04	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
MW-18-15	15	1/15/04	<0.002	0.0085	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
MW-17-15	15	1/15/04	<0.002	0.022	<0.005	<0.005	<0.002	<0.002	0.0044	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
MW-18-15	15	1/16/04	<0.002	0.034	<0.005	<0.005	<0.002	<0.002	0.0042	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-1N-3.0	3	1/16/04	<0.002	0.082	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-1N-6.0	6	1/16/04	<0.002	0.0078	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-10-3.0	3	1/16/04	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-11-3.0	3	1/16/04	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-11-6.0	6	1/16/04	<0.002	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	
SB-12-6.0	6	1/16/04	<0.002	0.0074	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	

Notes:
 mg/kg: milligrams per kilogram
 TCA: Trichloroethane
 TCE: Trichloroethene
 DCE: Dichloroethene
 DCA: Dichloroethane
 POE: Tetrahydroethene
 January 2004 samples analyzed by Del Mar Analytical, Irvine, CA.
 January & March 2007 samples analyzed by American Environmental Testing Laboratories (AETL), Burbank, CA.
 March 2008 and February 2008 samples analyzed by Offfield Environmental & Compliance (OEC), Santa Maria, CA.
 *: Padre Associates, Inc. 2007. Results of Site Assessment Activities, Nexuse Properties, 82 Coronar Drive, and 147 through 165 Castilian Drive, Goleta, Santa Barbara County, California, Table 2, May.

Date OACOC by: DMH

FIGURES

\\sm-fps21\public\client_files\p-r\rengo\figures\GIS\Figure 1 Vicinity Map BW.mxd - 12/31/2008 @ 9:08:51 AM

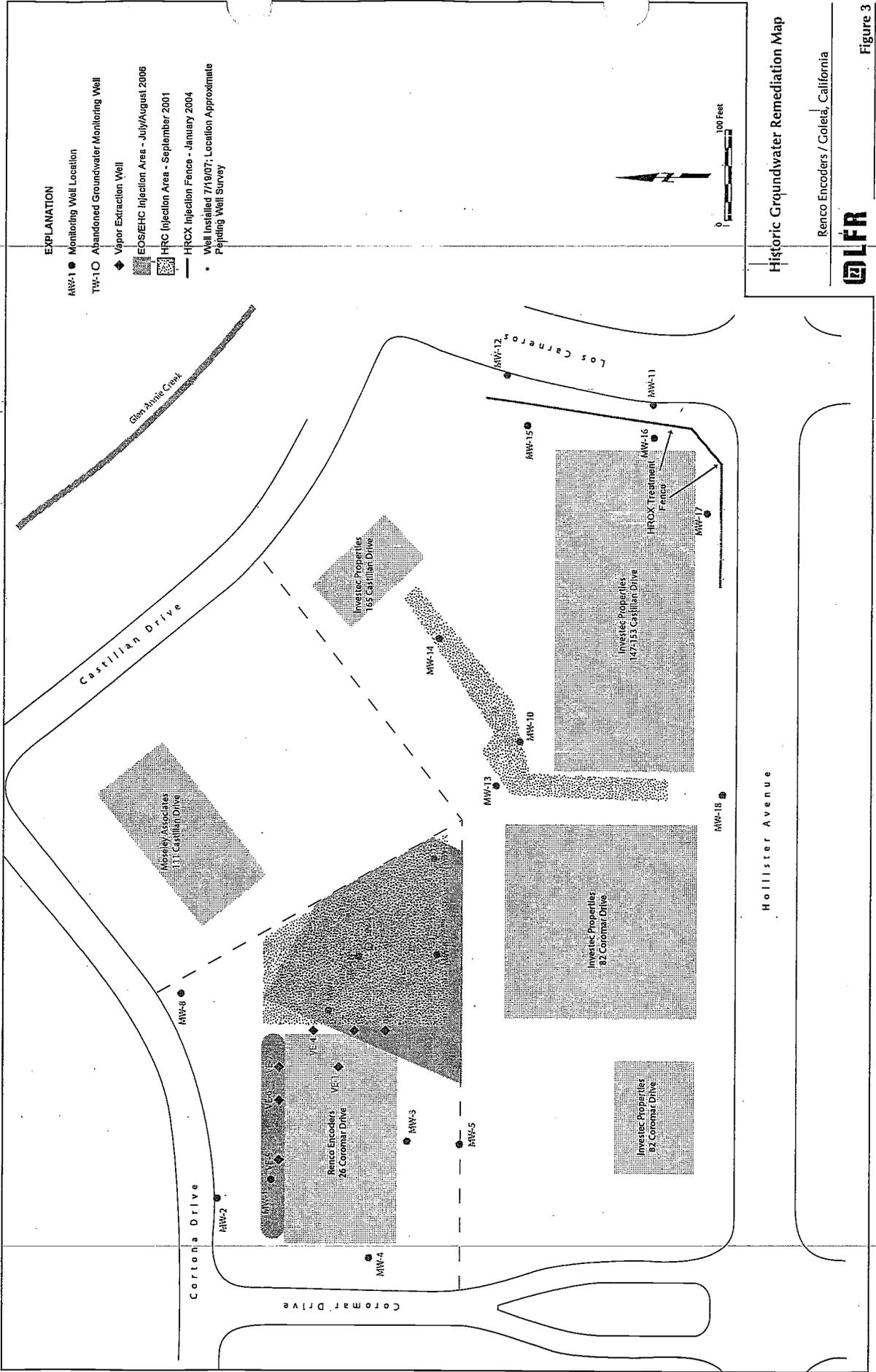


Renco and Investec Properties Vicinity Map

Renco Encoders / Goleta, California



Figure 1



Historic Groundwater Remediation Map

Renco Encoders / Coleta, California

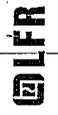
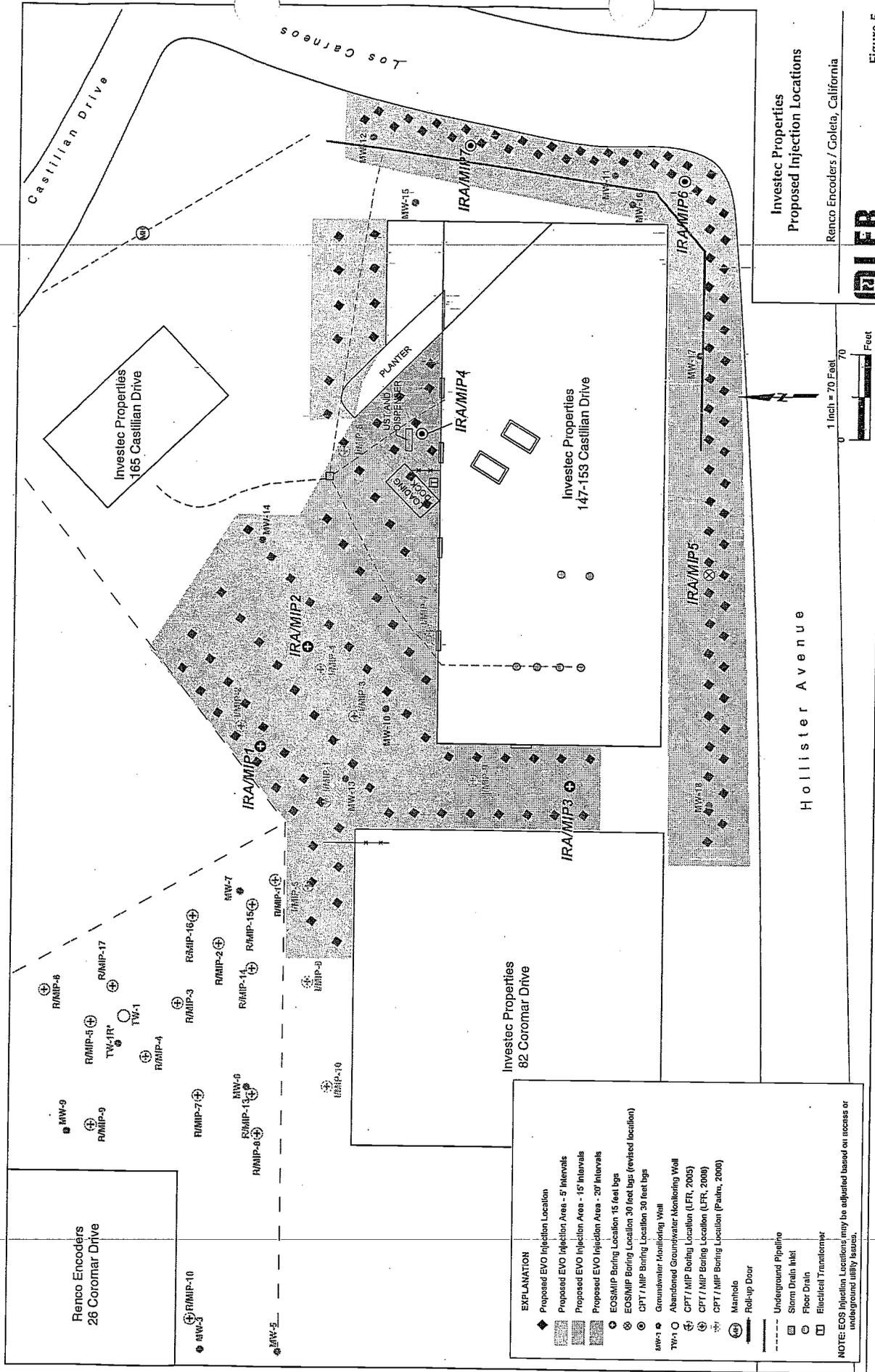


Figure 3

M:\Client\Flis\p\Renco\Figures\Figure 3 Historic Remediation Map.pdf (all)



EXPLANATION

- ◆ Proposed EVO Injection Location
- ▨ Proposed EVO Injection Area - 5' Intervals
- ▩ Proposed EVO Injection Area - 15' Intervals
- ▧ Proposed EVO Injection Area - 20' Intervals
- EGS/MIP Boring Location 15 feet bgs
- ⊙ EGS/MIP Boring Location 30 feet bgs (revised location)
- ⊕ CPT / MIP Boring Location 30 feet bgs
- ⊖ Groundwater Monitoring Well
- ⊗ Abandoned Groundwater Monitoring Well
- ⊙ CPT / MIP Boring Location (LFR, 2005)
- ⊙ CPT / MIP Boring Location (LFR, 2009)
- ⊙ CPT / MIP Boring Location (Palin, 2008)
- ⊕ Manhole
- ⊕ Roll-up Door
- Underground Pipeline
- ⊕ Storm Drain Inlet
- ⊕ Floor Drain
- ⊕ Electrical Transformer

NOTE: EOS Injection Locations may be adjusted based on success or underground utility issues.



DLR

Figure 5

Investec Properties
Proposed Injection Locations

Renco Encoders / Goleta, California

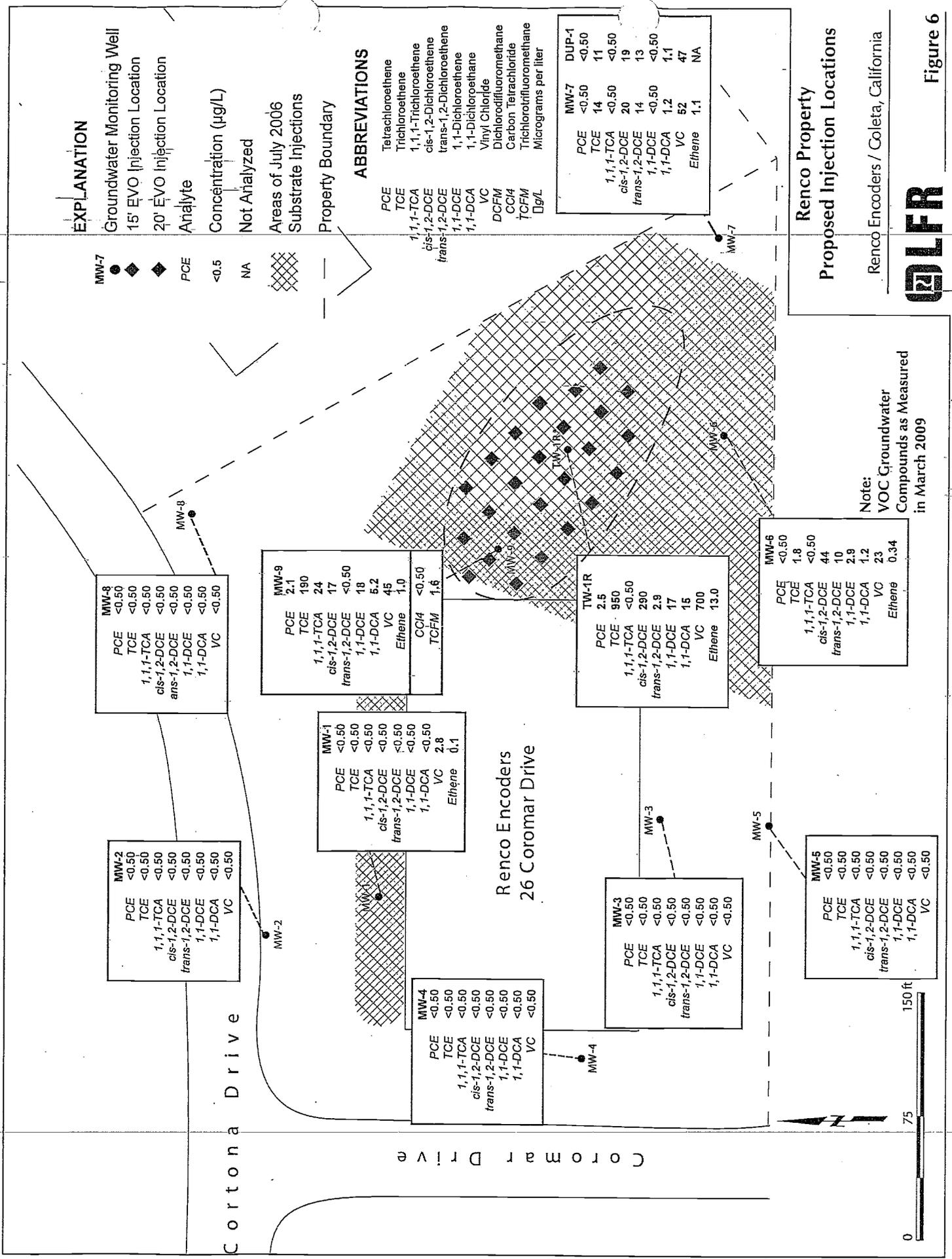
Hollister Avenue

Renco Encoders
26 Coromar Drive

Investec Properties
82 Coromar Drive

Investec Properties
165 Castilian Drive

Investec Properties
147-153 Castilian Drive



EXPLANATION

- Groundwater Monitoring Well
- 15' EVO Injection Location
- 20' EVO Injection Location
- Analyte
- Concentration (µg/L)
- Not Analyzed
- Areas of July 2006 Substrate Injections
- Property Boundary

ABBREVIATIONS

- PCE Tetrachloroethene
- TCE Trichloroethene
- 1,1,1-TCA 1,1,1-Trichloroethene
- cis-1,2-DCE cis-1,2-Dichloroethene
- trans-1,2-DCE trans-1,2-Dichloroethene
- 1,1-DCE 1,1-Dichloroethene
- 1,1-DCA 1,1-Dichloroethane
- VC Vinyl Chloride
- DCFM Dichlorodifluoromethane
- CCl4 Carbon Tetrachloride
- TCFM Trichlorotrifluoromethane
- µg/L Micrograms per liter

Renco Property
Proposed Injection Locations
 Renco Encoders / Coleta, California

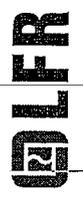


Figure 6

Note:
 VOC Groundwater
 Compounds as Measured
 in March 2009

MW-8

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	<0.50

MW-9

PCE	2.1
TCE	190
1,1,1-TCA	24
cis-1,2-DCE	17
trans-1,2-DCE	<0.50
1,1-DCE	18
1,1-DCA	5.2
VC	45
Ethene	1.0
CCl4	<0.50
TCFM	1.6

MW-1

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	2.8
Ethene	0.1

MW-2

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	<0.50

MW-4

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	<0.50

MW-3

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	<0.50

MW-5

PCE	<0.50
TCE	<0.50
1,1,1-TCA	<0.50
cis-1,2-DCE	<0.50
trans-1,2-DCE	<0.50
1,1-DCE	<0.50
1,1-DCA	<0.50
VC	<0.50

TW-1R

PCE	2.5
TCE	950
1,1,1-TCA	<0.50
cis-1,2-DCE	290
trans-1,2-DCE	2.9
1,1-DCE	17
1,1-DCA	15
VC	700
Ethene	13.0

MW-6

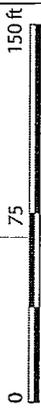
PCE	<0.50
TCE	1.8
1,1,1-TCA	<0.50
cis-1,2-DCE	44
trans-1,2-DCE	10
1,1-DCE	2.9
1,1-DCA	1.2
VC	23
Ethene	0.34

MW-7

PCE	<0.50
TCE	14
1,1,1-TCA	<0.50
cis-1,2-DCE	20
trans-1,2-DCE	14
1,1-DCE	<0.50
1,1-DCA	1.2
VC	52
Ethene	1.1

DUP-1

PCE	<0.50
TCE	11
1,1,1-TCA	<0.50
cis-1,2-DCE	19
trans-1,2-DCE	13
1,1-DCE	<0.50
1,1-DCA	1.1
VC	47
Ethene	NA



APPENDIX A

**Cone Penetrometer Test (CPT)
Boring Logs**



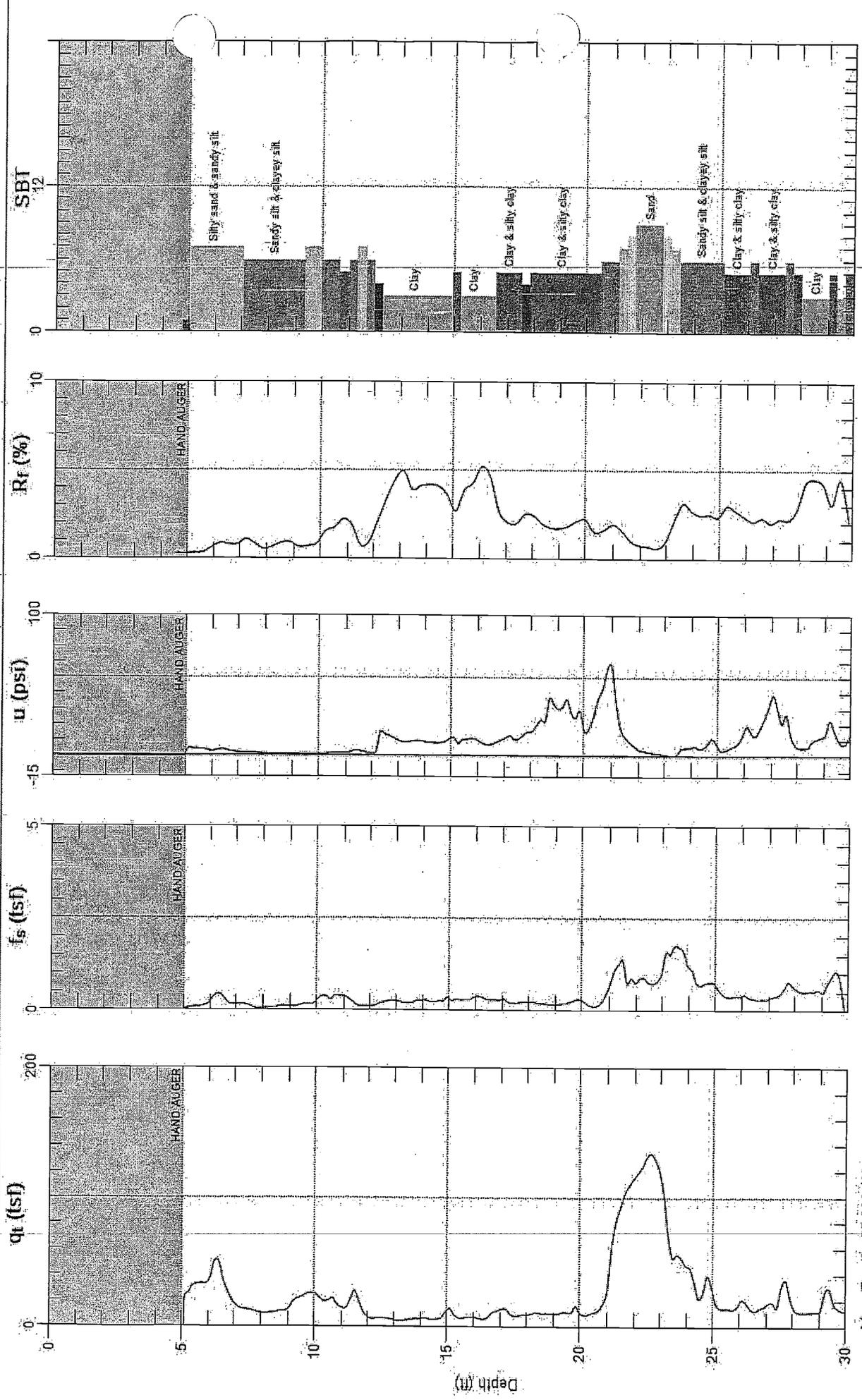
LFR

Site: RENCO

Sounding: CPT-04

Engineer: A.HOOK

Date: 3/25/2009 03:26



Max. Depth: 30.020 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson, 1990)

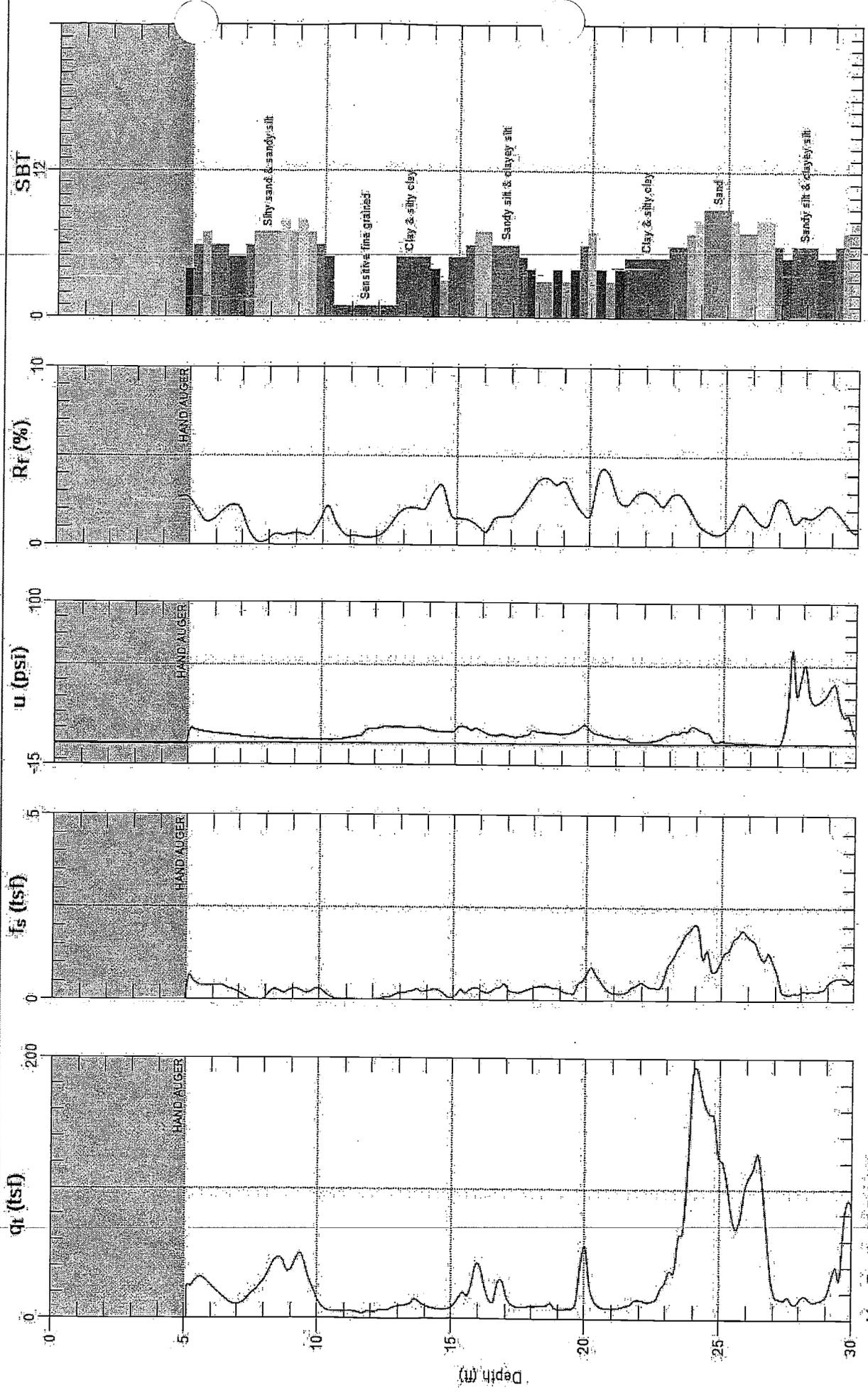


Engineer: A.HOOK

Date: 3/25/2009 05:16

Site: RENCO

Sounding: CPT-06



Max. Depth: 30.512 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson, 1990)



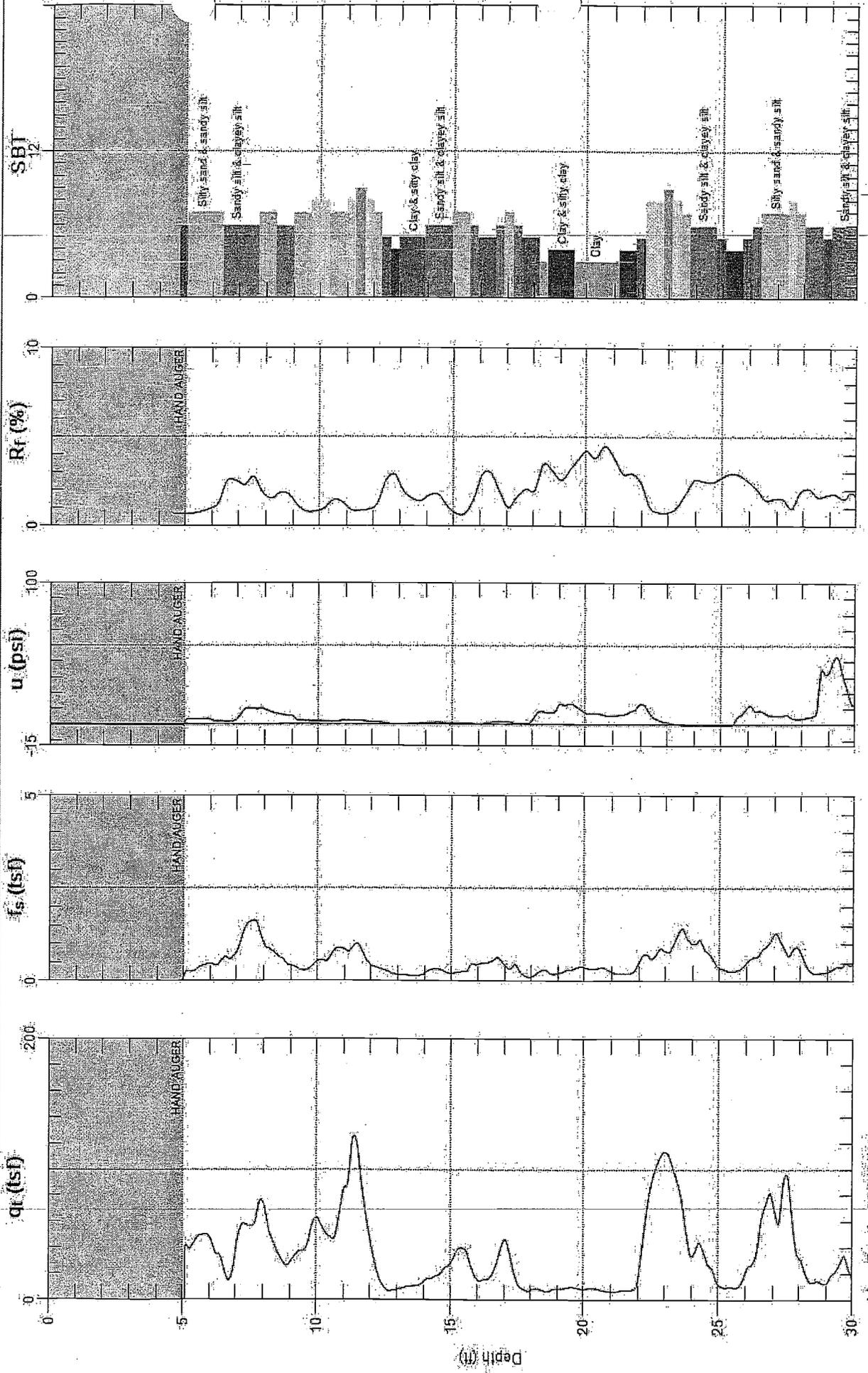
LFR

Site: RENCO

Engineer: A.HOOK

Sounding: CPT-07

Date: 3/25/2009 04:11



Max. Depth: 30.348 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson:1990)

APPENDIX B

**Laboratory Reports and Chain-of-Custody Forms
for Soil and Grab Groundwater Samples**



Aaron Hook
LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria, CA 93454

06 April 2009

RE: Renco-Investec Investigation

Work Order: 0900881

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 30-Mar-09 09:40 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all-analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read "Lisa Race", written in a cursive style.

Lisa Race

Laboratory Manager



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HP-IRA/MIP-04-15'	0900881-01	Water	27-Mar-09 10:10	30-Mar-09 09:40
HP-IRA/MIP-04-18'	0900881-02	Water	27-Mar-09 08:55	30-Mar-09 09:40
HP-IRA/MIP-04-24'	0900881-03	Water	27-Mar-09 09:35	30-Mar-09 09:40
HP-IRA/MIP-05-14'	0900881-04	Water	27-Mar-09 12:30	30-Mar-09 09:40
HP-IRA/MIP-05-19'	0900881-05	Water	27-Mar-09 13:15	30-Mar-09 09:40
HP-IRA/MIP-05-28'	0900881-06	Water	27-Mar-09 12:45	30-Mar-09 09:40
HP-IRA/MIP-06-18'	0900881-07	Water	27-Mar-09 14:30	30-Mar-09 09:40
HP-IRA/MIP-06-27'	0900881-08	Water	27-Mar-09 14:45	30-Mar-09 09:40
HP-IRA/MIP-07-27'	0900881-09	Water	27-Mar-09 16:00	30-Mar-09 09:40



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-04-15'
0900881-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method-8260B									
Benzene	0.61	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	20	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	34	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	400	5.0	"	10	A904018	02-Apr-09	02-Apr-09	"	
trans-1,2-Dichloroethene	40	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Ericke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-04-15'
0900881-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	0.63	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	1300	5.0	"	-10	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	1.7	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	36	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		99.0 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.9 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.4 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LER-Levine Fricke 301-S. Miller St., Ste. 210 Santa Maria-CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

HP-IRA/MIP-04-18'
0900881-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	40	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	64	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	340	5.0	"	10	A904018	02-Apr-09	02-Apr-09	"	
trans-1,2-Dichloroethene	9.0	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment-002-08031.20.004
Project-Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-04-18'
0900881-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch-	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	2.1	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	1300	5.0	"	10	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	3.3	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	44	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		100 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		99.8 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.7 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454-	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
--	--	------------------------------

HP-IRA/MIP-04-24'
0900881-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	40	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	83	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	240	5.0	"	10	A904018	02-Apr-09	02-Apr-09	"	
trans-1,2-Dichloroethene	13	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported: 06-Apr-09 14:20

-HP-IRA/HP-04-24'
0900881-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	2.0	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	920	5.0	"	10	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	2.3	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	45	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		97.6 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.4 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.8 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
-06-Apr-09 14:20

HP-IRA/MIP-05-14'
0900881-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	7.6	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	8.4	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	210	1.0	"	2	A904018	02-Apr-09	02-Apr-09	"	
trans-1,2-Dichloroethene	67	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20-004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

HP-IRA/MIP-05-14'
0900881-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	-Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	220	1.0	"	2	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	ND	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	2.5	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		100 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.9 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031-20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MEP-05-19*
0900881-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA-8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	5.6	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	6.3	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	130	1.0	"	2	A904018	02-Apr-09	02-Apr-09	"	
trans-1,2-Dichloroethene	28	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

~~HP-IRA/MIP-05-19'~~
0900881-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	0.63	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	380	1.0	"	2	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	ND	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	2.7	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		95.5 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.0 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.2 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LER-Levine Fricke
301 S. Miller St., Ste: 210
Santa Maria-CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

-HP-IRA/MIP-05-28'

0900881-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethyl vinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	2.0	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste-210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
--	--	------------------------------

HP-IRA/MIP-05-28'
0900881-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Volatile Organic Compounds by EPA Method 8260B

Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	2.8	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.8 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.4 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772

FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301-S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 -Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	---	------------------------------

HP-IRA/MIP-06-18'
-0900881-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	i	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	2.7	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	2.1	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	160	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	140	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria-CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-06-18'
0900881-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared-	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	-ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	24	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	83	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		97.6 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.5 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.4 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

HP-ERA/MIP-06-27'
0900881-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method--	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	18	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	32	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	72	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	3.4	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MFP-06-27'
0900881-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	-EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	450	2.5	"	5	A904018	02-Apr-09	02-Apr-09	"	
Trichlorofluoromethane	ND	0.50	"	1	A904004	01-Apr-09	01-Apr-09	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	1.1	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		99.4 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002=08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-07-27'
0900881-09 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	2.0	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	2.7	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	26	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	4.1	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Ethylene dibromide	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine-Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

HP-IRA/MIP-07-27'
0900881-09 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.50	ug/L	1	A904004	01-Apr-09	01-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
Naphthalene	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene (TCE)	15	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	0.95	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		98.1 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.6 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.1 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904004 - EPA 5030B VOCCMS										
Blank (A904004-BLK1)										
Prepared & Analyzed: 01-Apr-09										
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	"							
Bromochloromethane	ND	0.50	"							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	0.50	"							
n-Butylbenzene	ND	0.50	"							
sec-Butylbenzene	ND	0.50	"							
tert-Butylbenzene	ND	0.50	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	0.50	"							
2-Chloroethylvinyl ether	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	0.50	"							
2-Chlorotoluene	ND	0.50	"							
4-Chlorotoluene	ND	0.50	"							
1,2-Dibromo-3-chloropropane	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
Dibromomethane	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
Dichlorodifluoromethane	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
1,3-Dichloropropane	ND	0.50	"							
2,2-Dichloropropane	ND	0.50	"							
1,1-Dichloropropene	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Ethylene dibromide	ND	0.50	"							
Hexachlorobutadiene	ND	0.50	"							
Isopropylbenzene	ND	0.50	"							
4-Isopropyl Toluene	ND	0.50	"							

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke	Project: Renco-Investec Investigation	Reported:
301 S. Miller St., Ste. 210	Project Number: Remedial Assessment 002-08031.20.004	06-Apr-09 14:20
Santa Maria CA, 93454	Project Manager: Aaron Hook	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904004 - EPA 5030B VOCCCMS

Blank (A904004-BLKL)				Prepared & Analyzed: 01-Apr-09						
Methylene chloride	ND	1.0	ug/L							
Naphthalene	ND	0.50	"							
n-Propylbenzene	ND	0.50	"							
Styrene	ND	0.50	"							
1,1,1,2-Tetrachloroethane	ND	0.50	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene (PCE)	ND	0.50	"							
Toluene	ND	0.50	"							
1,2,3-Trichlorobenzene	ND	0.50	"							
1,2,4-Trichlorobenzene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene (TCE)	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
1,2,3-Trichloropropane	ND	0.50	"							
1,2,4-Trimethylbenzene	ND	0.50	"							
1,3,5-Trimethylbenzene	ND	0.50	"							
Vinyl chloride	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Surrogate: Dibromofluoromethane	23.8		"	25.0		95.3	70-130			
Surrogate: Toluene-d8	24.6		"	25.0		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	23.6		"	25.0		94.4	70-130			

LCS (A904004-BS1)				Prepared & Analyzed: 01-Apr-09						
Benzene	24.0	0.50	ug/L	25.0		96.0	70-130			
Chlorobenzene	24.3	0.50	"	25.0		97.1	70-130			
1,1-Dichloroethene	24.6	0.50	"	25.0		98.4	70-130			
Toluene	24.1	0.50	"	25.0		96.6	70-130			
Trichloroethene (TCE)	24.2	0.50	"	25.0		96.9	70-130			
Surrogate: Dibromofluoromethane	23.6		"	25.0		94.3	70-130			
Surrogate: Toluene-d8	25.0		"	25.0		99.9	70-130			
Surrogate: 4-Bromofluorobenzene	24.3		"	25.0		97.1	70-130			

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller-St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project-Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904004 - EPA 5030B VOCGCMS										
LCS Dup (A904004-BSD1)										
Prepared & Analyzed: 01-Apr-09										
Benzene	24.1	0.50	ug/L	25.0		96.5	70-130	0.540	20	
Chlorobenzene	24.3	0.50	"	25.0		97.2	70-130	0.123	20	
1,1-Dichloroethene	24.9	0.50	"	25.0		99.4	70-130	1.09	20	
Toluene	23.8	0.50	"	25.0		95.1	70-130	1.54	20	
Trichloroethene (TCE)	24.0	0.50	"	25.0		95.8	70-130	1.08	20	
Surrogate: Dibromofluoromethane	24.3		"	25.0		97.3	70-130			
Surrogate: Toluene-d8	24.8		"	25.0		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		"	25.0		96.4	70-130			
Duplicate (A904004-DUP1)										
Source: 0900881-01 Prepared & Analyzed: 01-Apr-09										
Benzene	0.570	0.50	ug/L		0.610			6.78	20	
Bromobenzene	ND	0.50	"		ND				20	
Bromochloromethane	ND	0.50	"		ND				20	
Bromodichloromethane	ND	0.50	"		ND				20	
Bromoform	ND	0.50	"		ND				20	
Bromomethane	ND	0.50	"		ND				20	
n-Butylbenzene	ND	0.50	"		ND				20	
sec-Butylbenzene	ND	0.50	"		ND				20	
tert-Butylbenzene	ND	0.50	"		ND				20	
Carbon tetrachloride	ND	0.50	"		ND				20	
Chlorobenzene	ND	0.50	"		ND				20	
Chloroethane	ND	0.50	"		ND				20	
2-Chloroethylvinyl ether	ND	1.0	"		ND				20	
Chloroform	ND	0.50	"		ND				20	
Chloromethane	ND	0.50	"		ND				20	
2-Chlorotoluene	ND	0.50	"		ND				20	
4-Chlorotoluene	ND	0.50	"		ND				20	
1,2-Dibromo-3-chloropropane	ND	0.50	"		ND				20	
Dibromochloromethane	ND	0.50	"		ND				20	
Dibromomethane	ND	0.50	"		ND				20	
1,2-Dichlorobenzene	ND	0.50	"		ND				20	
1,3-Dichlorobenzene	ND	0.50	"		ND				20	
1,4-Dichlorobenzene	ND	0.50	"		ND				20	
Dichlorodifluoromethane	ND	0.50	"		ND				20	
1,1-Dichloroethane	18.4	0.50	"		19.8			7.69	20	
1,2-Dichloroethane	ND	0.50	"		ND				20	
1,1-Dichloroethene	32.5	0.50	"		34.1			4.74	20	
cis-1,2-Dichloroethene	301	0.50	"		316			4.76	20	
trans-1,2-Dichloroethene	38.7	0.50	"		40.3			3.98	20	
1,2-Dichloropropane	ND	0.50	"		ND				20	
1,3-Dichloropropane	ND	0.50	"		ND				20	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904004 - EPA 5030B VOCGCMS										
Duplicate (A904004-DUP1) Source: 0900881-01 Prepared & Analyzed: 01-Apr-09										
2,2-Dichloropropane	ND	0.50	ug/L		ND				20	
1,1-Dichloropropene	ND	0.50	"		ND				20	
cis-1,3-Dichloropropene	ND	0.50	"		ND				20	
trans-1,3-Dichloropropene	ND	0.50	"		ND				20	
Ethylbenzene	ND	0.50	"		ND				20	
Ethylene dibromide	ND	0.50	"		ND				20	
Hexachlorobutadiene	ND	0.50	"		ND				20	
Isopropylbenzene	ND	0.50	"		ND				20	
4-Isopropyl Toluene	ND	0.50	"		ND				20	
Methylene chloride	ND	1.0	"		ND				20	
Naphthalene	ND	0.50	"		ND				20	
n-Propylbenzene	ND	0.50	"		ND				20	
Styrene	ND	0.50	"		ND				20	
1,1,1,2-Tetrachloroethane	ND	0.50	"		ND				20	
1,1,2,2-Tetrachloroethane	ND	0.50	"		ND				20	
Tetrachloroethene (PCE)	0.670	0.50	"		0.630			6.15	20	
Toluene	ND	0.50	"		ND				20	
1,2,3-Trichlorobenzene	ND	0.50	"		ND				20	
1,2,4-Trichlorobenzene	ND	0.50	"		ND				20	
1,1,1-Trichloroethane	ND	0.50	"		ND				20	
1,1,2-Trichloroethane	ND	0.50	"		ND				20	
Trichloroethene (TCE)	607	0.50	"		623			2.50	20	
Trichlorofluoromethane	1.58	0.50	"		1.68			6.13	20	
1,2,3-Trichloropropane	ND	0.50	"		ND				20	
1,2,4-Trimethylbenzene	ND	0.50	"		ND				20	
1,3,5-Trimethylbenzene	ND	0.50	"		ND				20	
Vinyl chloride	34.8	0.50	"		36.0			3.37	20	
Xylenes (total)	ND	0.50	"		ND				20	
Surrogate: Dibromofluoromethane	24.7		"	25.0		98.7	70-130			
Surrogate: Toluene-d8	24.7		"	25.0		98.9	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		"	25.0		96.1	70-130			

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904018 - EPA 5030B VOICGMS

Blank (A904018-BLK1)

Prepared & Analyzed: 02-Apr-09

Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	"							
Bromochloromethane	ND	0.50	"							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	0.50	"							
n-Butylbenzene	ND	0.50	"							
sec-Butylbenzene	ND	0.50	"							
tert-Butylbenzene	ND	0.50	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	0.50	"							
2-Chloroethylvinyl ether	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	0.50	"							
2-Chlorotoluene	ND	0.50	"							
4-Chlorotoluene	ND	0.50	"							
1,2-Dibromo-3-chloropropane	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
Dibromomethane	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
Dichlorodifluoromethane	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
1,3-Dichloropropane	ND	0.50	"							
2,2-Dichloropropane	ND	0.50	"							
1,1-Dichloropropene	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Ethylene dibromide	ND	0.50	"							
Hexachlorobutadiene	ND	0.50	"							
Isopropylbenzene	ND	0.50	"							
4-Isopropyl Toluene	ND	0.50	"							

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste-210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
--	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B-- Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904018 - EPA 5030B VOCCMS

Blank (A904018-BLK1)				Prepared & Analyzed: 02-Apr-09						
Methylene chloride	ND	1.0	ug/L							
Naphthalene	ND	0.50	"							
n-Propylbenzene	ND	0.50	"							
Styrene	ND	0.50	"							
1,1,1,2-Tetrachloroethane	ND	0.50	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene (PCE)	ND	0.50	"							
Toluene	ND	0.50	"							
1,2,3-Trichlorobenzene	ND	0.50	"							
1,2,4-Trichlorobenzene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene (TCE)	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
1,2,3-Trichloropropane	ND	0.50	"							
1,2,4-Trimethylbenzene	ND	0.50	"							
1,3,5-Trimethylbenzene	ND	0.50	"							
Vinyl chloride	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Surrogate: Dibromofluoromethane	23.7		"	25.0		94.8	70-130			
Surrogate: Toluene-d8	24.5		"	25.0		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	24.5		"	25.0		98.1	70-130			

LCS (A904018-BS1)				Prepared & Analyzed: 02-Apr-09						
Benzene	24.0	0.50	ug/L	25.0		95.8	70-130			
Chlorobenzene	24.1	0.50	"	25.0		96.4	70-130			
1,1-Dichloroethene	25.2	0.50	"	25.0		101	70-130			
Toluene	23.8	0.50	"	25.0		95.2	70-130			
Trichloroethene (TCE)	24.2	0.50	"	25.0		96.6	70-130			
Surrogate: Dibromofluoromethane	24.4		"	25.0		97.4	70-130			
Surrogate: Toluene-d8	24.8		"	25.0		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		"	25.0		97.7	70-130			

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 06-Apr-09 14:20
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904018 - EPA 5030B VOCCCMS										
LCS Dup (A904018-BSD1)				Prepared & Analyzed: 02-Apr-09						
Benzene	24.4	0.50	ug/L	25.0		97.4	70-130	1.66	20	
Chlorobenzene	24.0	0.50	"	25.0		96.2	70-130	0.208	20	
1,1-Dichloroethene	24.7	0.50	"	25.0		98.6	70-130	2.01	20	
Toluene	24.2	0.50	"	25.0		96.8	70-130	1.62	20	
Trichloroethene (TCE)	24.0	0.50	"	25.0		96.2	70-130	0.498	20	
Surrogate: Dibromofluoromethane	24.8		"	25.0		99.3	70-130			
Surrogate: Toluene-d8	25.3		"	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	25.0		"	25.0		99.8	70-130			
Duplicate (A904018-DUP1)		Source: 0900843-01			Prepared & Analyzed: 02-Apr-09					
Benzene	ND	0.50	ug/L		ND				20	
Bromobenzene	ND	0.50	"		ND				20	
Bromochloromethane	ND	0.50	"		ND				20	
Bromodichloromethane	ND	0.50	"		ND				20	
Bromoform	ND	0.50	"		ND				20	
Bromomethane	ND	0.50	"		ND				20	
n-Butylbenzene	ND	0.50	"		ND				20	
sec-Butylbenzene	ND	0.50	"		ND				20	
tert-Butylbenzene	ND	0.50	"		ND				20	
Carbon tetrachloride	ND	0.50	"		ND				20	
Chlorobenzene	ND	0.50	"		ND				20	
Chloroethane	ND	0.50	"		ND				20	
2-Chloroethylvinyl ether	ND	1.0	"		ND				20	
Chloroform	ND	0.50	"		ND				20	
Chloromethane	ND	0.50	"		ND				20	
2-Chlorotoluene	ND	0.50	"		ND				20	
4-Chlorotoluene	ND	0.50	"		ND				20	
1,2-Dibromo-3-chloropropane	ND	0.50	"		ND				20	
Dibromochloromethane	ND	0.50	"		ND				20	
Dibromomethane	ND	0.50	"		ND				20	
1,2-Dichlorobenzene	ND	0.50	"		ND				20	
1,3-Dichlorobenzene	ND	0.50	"		ND				20	
1,4-Dichlorobenzene	ND	0.50	"		ND				20	
Dichlorodifluoromethane	ND	0.50	"		ND				20	
1,1-Dichloroethane	ND	0.50	"		ND				20	
1,2-Dichloroethane	ND	0.50	"		ND				20	
1,1-Dichloroethene	ND	0.50	"		ND				20	
cis-1,2-Dichloroethene	ND	0.50	"		ND				20	
trans-1,2-Dichloroethene	ND	0.50	"		ND				20	
1,2-Dichloropropane	ND	0.50	"		ND				20	
1,3-Dichloropropane	ND	0.50	"		ND				20	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC --Limits	RPD	RPD Limit	Notes
Batch A904018 - EPA 5030B-VOCGCMS										
Duplicate (A904018-DUP1)		Source: 0900843-01			Prepared & Analyzed: 02-Apr-09					
2,2-Dichloropropane	ND	0.50	ug/L		ND				20	
1,1-Dichloropropene	ND	0.50	"		ND				20	
cis-1,3-Dichloropropene	ND	0.50	"		ND				20	
trans-1,3-Dichloropropene	ND	0.50	"		ND				20	
Ethylbenzene	ND	0.50	"		ND				20	
Ethylene dibromide	ND	0.50	"		ND				20	
Hexachlorobutadiene	ND	0.50	"		ND				20	
Isopropylbenzene	ND	0.50	"		ND				20	
4-Isopropyl Toluene	1.35	0.50	"		ND				20	
Methylene chloride	ND	1.0	"		ND				20	
Naphthalene	ND	0.50	"		ND				20	
n-Propylbenzene	ND	0.50	"		ND				20	
Styrene	ND	0.50	"		ND				20	
1,1,1,2-Tetrachloroethane	ND	0.50	"		ND				20	
1,1,2,2-Tetrachloroethane	ND	0.50	"		ND				20	
Tetrachloroethene (PCE)	ND	0.50	"		ND				20	
Toluene	0.560	0.50	"		ND				20	
1,2,3-Trichlorobenzene	ND	0.50	"		ND				20	
1,2,4-Trichlorobenzene	ND	0.50	"		ND				20	
1,1,1-Trichloroethane	ND	0.50	"		ND				20	
1,1,2-Trichloroethane	ND	0.50	"		ND				20	
Trichloroethene (TCE)	ND	0.50	"		ND				20	
Trichlorofluoromethane	ND	0.50	"		ND				20	
1,2,3-Trichloropropane	ND	0.50	"		ND				20	
1,2,4-Trimethylbenzene	ND	0.50	"		ND				20	
1,3,5-Trimethylbenzene	ND	0.50	"		ND				20	
Vinyl chloride	ND	0.50	"		ND				20	
Xylenes (total)	ND	0.50	"		ND				20	
Surrogate: Dibromofluoromethane	24.5		"	25.0		98.0	70-130			
Surrogate: Toluene-d8	24.7		"	25.0		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	24.7		"	25.0		98.9	70-130			

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria, CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
06-Apr-09 14:20

~~Notes and Definitions~~

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance
 307 Roemer Way Suite 300, Santa Maria CA 93454
 phone: (805) 922-4772 fax: (805) 925-3376 www.oecusa.com

CHAIN OF CUSTODY

Highway 33, McKittrick CA
 phone: (661) 762-9143

Page 1 of 1

Project Name: LAND - INVESTIG. REMEDIAL ASSESSMENT / 007-0803120-DD4

Company: LFR, INC
 Address: 301 S. MERRILL ST., SITE 210
 City/State/ZIP: SANTA MARIA, CA 93454
 Phone: 805-349-7180 Fax: 805-349-7176 E-mail: Aaron.Hank@lfr.com
 Report To: Aaron Hank Sampler: AMH
 Send report via: FAX PDF CD/FLU/EDF EDD
 Turnaround Time: 10 Days 5 Days 72 hr 48 hr 24 hr ASAP

Analysis Requested	Special Instructions	Client Sample ID	
		Date/Time Sampled	Matrix
		90109/1010	HP-ICCA/MOP-04-15'
		0255	-04-18'
		0435	-04-24'
		1230	-05-14'
		1315	-05-19'
		1415	-05-28'
		1430	-06-18'
		1445	-06-27'
		1600	-07-27'

82608-DC's X

*POL FOR TCE, NOT TO EXCEED 0.5 ug/l

Comments/PO#: 22-323

Relinquished By: [Signature] Date: 3/30/09 Time: 0940
 Received By: [Signature] Date: 3-30-09 Time: 0940

Relinquished By:	Date:	Time:
Received By:	Date:	Time:
Relinquished By:	Date:	Time:
Received By:	Date:	Time:



SAMPLE RECEIPT

CLIENT: XLF

OECID #: 090881

Temp: 6 °C

Acceptable Range: 0°C to 6°C

COC RECEIVED
DATE/TIME: 3-30-09 @ 0946

RECEIPT LOGIN
DATE/TIME: 3-30-09 @ 1040

RECEIPT #:

REFRIGERATOR(S): #2

- SAMPLE TRANSPORT, RECEIPT, CONDITION & PRESERVATION:**
- OEC Courier/Sampler
 - Delivery (Other than OEC Courier)
 - Samples Received Outside Temp. Range*
 - Samples Direct from field (Outside Temp)
 - After-Hours Outside Drop-off [Brought Inside] (Initials/Date/Time):
 - COC document(s) received with samples
 - Container label(s) consistent with COC
 - Container(s) intact and in good condition
 - Correct containers for analysis requested
 - Proper preservation on sample label(s)
 - OEC preservative added (**note sig ID)

- (*) PROBLEM CHAIN FORM NEEDED**
- Custody Seals (circle): Present / Absent
 - Samples / Coolers: Intact / Broken*
- Method of Shipment & Tracking (if applicable):

COC CHANGES AND/OR CORRECTIONS:

CHANGES AUTHORIZED BY:

OEC ID	Client ID	Container Description	Preservative	ResCl /pH	Matrix	Date/Time Sampled	Comments / Remarks / Condition Notes, Etc.
090881							
-MTC		See COC			Ag	See COC	
-DATE							
-BAC							
-QAC							
-SAC							
-6AC							
-7AC							
-8AC							
-9AC							

RECEIPT LOGIN BY: [Signature]

RECEIPT REVIEWED BY: [Signature]



PROBLEM CHAIN

CLIENT: ALF

OEC ID #: 0900881

ISSUES RECORDED BY (DATE/TIME/INITIALS): 3-30-07 @ 1045 RA

ISSUE(S): PLEASE PROVIDE DETAILS OF ISSUE(S) BELOW -- Samples/Containers Affected, as necessary.

- Samples Received Outside Temp. Range (see below) NO COC document(s) received with samples
- Incorrect containers for analysis requested Container label(s) NOT consistent with COC
- OTHER: (if multiple, identify with numbers)

Don's marked w/ an X none heads free

RESOLUTIONS: MINIMUM INFO: Issue# [if necessary] - Description - Contact Type (Verbal, email, etc.) - Client Authorization Contact - Date/Time/Initials

FINAL RESOLUTION OF ISSUES BY (DATE/TIME/INITIALS): 3-30-07 @ 1045 RA



1900 Powell Street, 12th Floor
 Emeryville, CA 94608-1827
 510.652.4500, FAX: 510.652.2246

Purchase Order # 22323

Issue Date: 3/30/09
 Start Date: 3/23/2009
 Finish Date: 12/31/2009

To:
 Oilfield Environmental
 Compliance
 307 Roemer Way, Suite 300,
 Santa Maria, CA 93454
 805-922-4772, FAX: 805-925-3376
 Attn:
 LFR VENDOR ID # 201878

Bill to:
 LFR Inc.
 Attn: Accounting Liaison
 301 South Miller Street, Suite 210
 Santa Maria, CA 93454
 (805) 349-7180, FAX: (805) 349-7176
 P.O. # MUST APPEAR ON ALL INVOICES

LFR Project Information
 Project Code: 002-08031-20
 Phase Code(s): 004
 PM: Timothy L. Limbers
 Project Location:
 Investec, 147-165 Castilian
 Goleta, Ca

A current copy of your certificate of insurance is already on file.

Line	Description	Qty	UnitCost	UnitType	Pricing	Total
1	VOC's by 8260B	16	\$85.00	sample	UP, NTE	\$1,360.00
Grand Total:						\$1,360.00
Comments:						
Pricing per, Julius in 3/20/09 email, attached.						

This PO is hereby accepted and executed by duly authorized representatives of Subcontractor and LFR.

By Subcontractor _____ Date _____ By LFR Authorized Project Manager _____ Date _____

Upon the earlier of the commencement of the Work or acceptance of this Purchase Order, Subcontractor agrees to LFR's General Terms and Conditions attached hereto by reference and made a part of this Purchase Order.

Hook, Aaron

From: Julius Carstens [jcarstens@oecusa.com]
Sent: Friday, March 20, 2009 8:48 AM
To: Hook, Aaron
Subject: RE: Renco / Regency prices

Yes. That should be fine. And thank you for getting us paid on some old stuff.

Julius

From: Hook, Aaron [mailto:Aaron.Hook@lfr.com]
Sent: Friday, March 20, 2009 6:45 AM
To: Julius Carstens
Subject: RE: Renco / Regency prices

Julius,
I've got some soil/GW sampling coming up at Renco next week, probably on the order of 15 samples for 8260B. Would you be able to extend the same pricing (\$85) as the quarterly monitoring?
Thanks,
Aaron

From: Julius Carstens [jcarstens@oecusa.com]
Sent: Tuesday, February 03, 2009 3:29 PM
To: Hook, Aaron
Subject: RE: Renco / Regency prices

Aaron,

I have attached a quote that matches the prices you sent. Thank you for letting us update our prices. Let me know if you have any questions.

Thanks
Julius

From: Hook, Aaron [mailto:Aaron.Hook@lfr.com]
Sent: Tuesday, February 03, 2009 10:00 AM
To: Julius Carstens
Subject: Renco / Regency prices

Julius,
We've been asked to look at reducing costs for our quarterly monitoring projects. I've received a bid that I'd like to give you a chance to meet or at least respond to. Take a look at these prices and give me a call if you have any questions.

VOCs 8260B	\$85
VOCs +oxys 8260B	\$85
TPHg 8015 GRO	\$35
Lactic Acid 300.0	\$100
Sulfate 300.0	\$17
TOC	\$35

Thanks,

Oilfield Environmental and Compliance, INC.



Aaron Hook
LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria, CA 93454

07 April 2009

RE: Renco-Investec Investigation

Work Order: 0900880

Dear Client:

Enclosed is an analytical report for the above referenced project. The samples included in this report were received on 30-Mar-09 09:40 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lisa Race', is written over a light blue horizontal line.

Lisa Race

Laboratory Manager



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20:004
Project-Manager: Aaron Hook

Reported: ---
07-Apr-09 13:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS-IRA/MIP-04-6'	0900880-01	Solid	27-Mar-09 08:10	30-Mar-09 09:40
SS-IRA/MIP-04-10'	0900880-02	Solid	27-Mar-09 08:15	30-Mar-09 09:40
SS-IRA/MIP-05-5'	0900880-03	Solid	27-Mar-09 10:50	30-Mar-09 09:40
SS-IRA/MIP-05-8'	0900880-04	Solid	27-Mar-09 11:30	30-Mar-09 09:40
SS-IRA/MIP-06-3'	0900880-05	Solid	27-Mar-09 14:00	30-Mar-09 09:40
SS-IRA/MIP-07-7.5'	0900880-06	Solid	27-Mar-09 15:25	30-Mar-09 09:40
SS-IRA/MIP-07-7.14'	0900880-07	Solid	27-Mar-09 15:30	30-Mar-09 09:40

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20-004-
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

SS-IRA/MIP-04-6'
0900880-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904050	06-Apr-09	06-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	0.0066	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

~~SS-IRA/MIP-04-6'~~
~~0900880-01 (Solid)~~

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.0050	mg/kg	1	A904050	06-Apr-09	06-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	0.0056	0.0050	"	"	"	"	"	"	O-01
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	0.0073	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.6 %	70-130		"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria-CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

-SS-IRA/MIP-04-10*
0900880-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B-	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	0.0077	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste.-210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

SS-IRA/MIP-04-10'
0900880-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	0.012	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		97.0 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

SS-IRA/MIP-05-5'
-0900880-03 (Solid)

Analyte.	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg.	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

SS-IRA/MIP-05-5'
0900880-03-(Solid)

Analyte	Result	Reporting -Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		107 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		96.0 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa-Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

SS-IRA/MIP-05-8'
0900880-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

—Reported—
07-Apr-09-13:18

SS-IRA/MIP-05-8'
0900880-04 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	0.028	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		107 %		70-130	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.0 %		70-130	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.3 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20:004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

SS-IRA/MIP-06-3'
0900880-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
-Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

SS-IR-MIP-06-3'
0900880-05 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene-	ND	-0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		96.8 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %		70-130	"	"	"	"	

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

~~SS-IRA/MIP-07-7.5'~~
0900880-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

SS-IRA/MIP-07-7.5'
0900880-06 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	-0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	-0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %		70-130	"	"	"	"	
Surrogate: Toluene-d8		96.9 %		70-130	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %		70-130	"	"	"	"	



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller-St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron-Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

SS-IRA/MIP-07-7.14'

0900880-07 (Solid)---

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Benzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
Bromobenzene	ND	0.0050	"	"	"	"	"	"	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
2-Chloroethyl vinyl ether	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772

FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

SS-IRA/MIP-07-7.14'
0900880-07 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organic Compounds by EPA Method 8260B									
Isopropylbenzene	ND	0.0050	mg/kg	1	A904043	04-Apr-09	04-Apr-09	EPA 8260B	
4-Isopropyl Toluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene (TCE)	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		98.2 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		96.3 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.7 %	70-130		"	"	"	"	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria, CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
--	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904043 - EPA 5030B VOCGCMS

Blank (A904043-BLK1)

Prepared & Analyzed: 04-Apr-09

Benzene	ND	0.0050	mg/kg							
Bromobenzene	ND	0.0050	"							
Bromochloromethane	ND	0.0050	"							
Bromodichloromethane	ND	0.0050	"							
Bromoform	ND	0.0050	"							
Bromomethane	ND	0.0050	"							
n-Butylbenzene	ND	0.0050	"							
sec-Butylbenzene	ND	0.0050	"							
tert-Butylbenzene	ND	0.0050	"							
Carbon tetrachloride	ND	0.0050	"							
Chlorobenzene	ND	0.0050	"							
Chloroethane	ND	0.0050	"							
2-Chloroethylvinyl ether	ND	0.0050	"							
Chloroform	ND	0.0050	"							
Chloromethane	ND	0.0050	"							
2-Chlorotoluene	ND	0.0050	"							
4-Chlorotoluene	ND	0.0050	"							
1,2-Dibromo-3-chloropropane	ND	0.0050	"							
Dibromochloromethane	ND	0.0050	"							
Dibromomethane	ND	0.0050	"							
1,2-Dichlorobenzene	ND	0.0050	"							
1,3-Dichlorobenzene	ND	0.0050	"							
1,4-Dichlorobenzene	ND	0.0050	"							
Dichlorodifluoromethane	ND	0.0050	"							
1,1-Dichloroethane	ND	0.0050	"							
1,2-Dichloroethane	ND	0.0050	"							
1,1-Dichloroethene	ND	0.0050	"							
cis-1,2-Dichloroethene	ND	0.0050	"							
trans-1,2-Dichloroethene	ND	0.0050	"							
1,2-Dichloropropane	ND	0.0050	"							
1,3-Dichloropropane	ND	0.0050	"							
2,2-Dichloropropane	ND	0.0050	"							
1,1-Dichloropropene	ND	0.0050	"							
cis-1,3-Dichloropropene	ND	0.0050	"							
trans-1,3-Dichloropropene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
1,2-Dibromoethane (EDB)	ND	0.0050	"							
Hexachlorobutadiene	ND	0.0050	"							
Isopropylbenzene	ND	0.0050	"							
4-Isopropyl Toluene	ND	0.0050	"							

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210- Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
--	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904043 - EPA-5030B VOCGCMS

Blank (A904043-BLK1)				Prepared & Analyzed: 04-Apr-09						
Methylene chloride	ND	0.0050	mg/kg							
Naphthalene	ND	0.0050	"							
n-Propylbenzene	ND	0.0050	"							
Styrene	ND	0.0050	"							
1,1,1,2-Tetrachloroethane	ND	0.0050	"							
1,1,2,2-Tetrachloroethane	ND	0.0050	"							
Tetrachloroethene (PCE)	ND	0.0050	"							
Toluene	ND	0.0050	"							
1,2,3-Trichlorobenzene	ND	0.0050	"							
1,2,4-Trichlorobenzene	ND	0.0050	"							
1,1,1-Trichloroethane	ND	0.0050	"							
1,1,2-Trichloroethane	ND	0.0050	"							
Trichloroethene (TCE)	ND	0.0050	"							
Trichlorofluoromethane	ND	0.0050	"							
1,2,3-Trichloropropane	ND	0.0050	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Vinyl chloride	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: Dibromofluoromethane	0.102		"	0.100		102	70-130			
Surrogate: Toluene-d8	0.0968		"	0.100		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.0950		"	0.100		95.0	70-130			

Blank (A904043-BLK2)				Prepared & Analyzed: 04-Apr-09						
Benzene	ND	0.0050	mg/kg							
Bromobenzene	ND	0.0050	"							
Bromochloromethane	ND	0.0050	"							
Bromodichloromethane	ND	0.0050	"							
Bromoform	ND	0.0050	"							
Bromomethane	ND	0.0050	"							
n-Butylbenzene	ND	0.0050	"							
sec-Butylbenzene	ND	0.0050	"							
tert-Butylbenzene	ND	0.0050	"							
Carbon tetrachloride	ND	0.0050	"							
Chlorobenzene	ND	0.0050	"							
Chloroethane	ND	0.0050	"							
2-Chloroethylvinyl ether	ND	0.0050	"							
Chloroform	ND	0.0050	"							
Chloromethane	ND	0.0050	"							
2-Chlorotoluene	ND	0.0050	"							
4-Chlorotoluene	ND	0.0050	"							

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904043 - EPA 5030B VOGCMS										
Blank (A904043-BLK2)				Prepared & Analyzed: 04-Apr-09						
1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg							
Dibromochloromethane	ND	0.0050	"							
Dibromomethane	ND	0.0050	"							
1,2-Dichlorobenzene	ND	0.0050	"							
1,3-Dichlorobenzene	ND	0.0050	"							
1,4-Dichlorobenzene	ND	0.0050	"							
Dichlorodifluoromethane	ND	0.0050	"							
1,1-Dichloroethane	ND	0.0050	"							
1,2-Dichloroethane	ND	0.0050	"							
1,1-Dichloroethene	ND	0.0050	"							
cis-1,2-Dichloroethene	ND	0.0050	"							
trans-1,2-Dichloroethene	ND	0.0050	"							
1,2-Dichloropropane	ND	0.0050	"							
1,3-Dichloropropane	ND	0.0050	"							
2,2-Dichloropropane	ND	0.0050	"							
1,1-Dichloropropene	ND	0.0050	"							
cis-1,3-Dichloropropene	ND	0.0050	"							
trans-1,3-Dichloropropene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
1,2-Dibromoethane (EDB)	ND	0.0050	"							
Hexachlorobutadiene	ND	0.0050	"							
Isopropylbenzene	ND	0.0050	"							
4-Isopropyl Toluene	ND	0.0050	"							
Methylene chloride	ND	0.0050	"							
Naphthalene	ND	0.0050	"							
n-Propylbenzene	ND	0.0050	"							
Styrene	ND	0.0050	"							
1,1,1,2-Tetrachloroethane	ND	0.0050	"							
1,1,2,2-Tetrachloroethane	ND	0.0050	"							
Tetrachloroethene (PCE)	ND	0.0050	"							
Toluene	ND	0.0050	"							
1,2,3-Trichlorobenzene	ND	0.0050	"							
1,2,4-Trichlorobenzene	ND	0.0050	"							
1,1,1-Trichloroethane	ND	0.0050	"							
1,1,2-Trichloroethane	ND	0.0050	"							
Trichloroethene (TCE)	ND	0.0050	"							
Trichlorofluoromethane	ND	0.0050	"							
1,2,3-Trichloropropane	ND	0.0050	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine.Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904043 - EPA 5030B VOCGCMS										
Blank (A904043-BLK2)										
Prepared & Analyzed: 04-Apr-09										
Vinyl chloride	ND	0.0050	mg/kg							
Xylenes (total)	ND	0.0050	"							
Surrogate: Dibromofluoromethane	0.0971		"	0.100		97.1	70-130			
Surrogate: Toluene-d8	0.0976		"	0.100		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.0944		"	0.100		94.4	70-130			
LCS (A904043-BS1)										
Prepared & Analyzed: 04-Apr-09										
Benzene	0.102	0.0050	mg/kg	0.100		102	70-130			
Chlorobenzene	0.100	0.0050	"	0.100		100	70-130			
1,1-Dichloroethene	0.102	0.0050	"	0.100		102	70-130			
Toluene	0.0968	0.0050	"	0.100		96.8	70-130			
Trichloroethene (TCE)	0.0975	0.0050	"	0.100		97.5	70-130			
Surrogate: Dibromofluoromethane	0.0988		"	0.100		98.8	70-130			
Surrogate: Toluene-d8	0.0980		"	0.100		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.0965		"	0.100		96.5	70-130			
LCS Dup (A904043-BSDI)										
Prepared & Analyzed: 04-Apr-09										
Benzene	0.102	0.0050	mg/kg	0.100		102	70-130	0.196	20	
Chlorobenzene	0.102	0.0050	"	0.100		102	70-130	2.29	20	
1,1-Dichloroethene	0.104	0.0050	"	0.100		104	70-130	1.98	20	
Toluene	0.0987	0.0050	"	0.100		98.7	70-130	1.92	20	
Trichloroethene (TCE)	0.0999	0.0050	"	0.100		99.9	70-130	2.39	20	
Surrogate: Dibromofluoromethane	0.0974		"	0.100		97.4	70-130			
Surrogate: Toluene-d8	0.0980		"	0.100		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.0958		"	0.100		95.8	70-130			
Duplicate (A904043-DUP1)										
Source: 0900880-03 Prepared & Analyzed: 04-Apr-09										
Benzene	ND	0.0050	mg/kg		ND				20	
Bromobenzene	ND	0.0050	"		ND				20	
Bromochloromethane	ND	0.0050	"		ND				20	
Bromodichloromethane	ND	0.0050	"		ND				20	
Bromoform	ND	0.0050	"		ND				20	
Bromomethane	ND	0.0050	"		ND				20	
n-Butylbenzene	ND	0.0050	"		ND				20	
sec-Butylbenzene	ND	0.0050	"		ND				20	
tert-Butylbenzene	ND	0.0050	"		ND				20	
Carbon tetrachloride	ND	0.0050	"		ND				20	
Chlorobenzene	ND	0.0050	"		ND				20	
Chloroethane	ND	0.0050	"		ND				20	
2-Chloroethylvinyl ether	ND	0.0050	"		ND				20	
Chloroform	ND	0.0050	"		ND				20	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting -Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch A904043 - EPA 5030B VOCGCMS									
Duplicate (A904043-DUP1)		Source: 0900880-03			Prepared & Analyzed: 04-Apr-09				
Chloromethane	ND	0.0050	mg/kg		ND			20	
2-Chlorotoluene	ND	0.0050	"		ND			20	
4-Chlorotoluene	ND	0.0050	"		ND			20	
1,2-Dibromo-3-chloropropane	ND	0.0050	"		ND			20	
Dibromochloromethane	ND	0.0050	"		ND			20	
Dibromomethane	ND	0.0050	"		ND			20	
1,2-Dichlorobenzene	ND	0.0050	"		ND			20	
1,3-Dichlorobenzene	ND	0.0050	"		ND			20	
1,4-Dichlorobenzene	ND	0.0050	"		ND			20	
Dichlorodifluoromethane	ND	0.0050	"		ND			20	
1,1-Dichloroethane	ND	0.0050	"		ND			20	
1,2-Dichloroethane	ND	0.0050	"		ND			20	
1,1-Dichloroethene	ND	0.0050	"		ND			20	
cis-1,2-Dichloroethene	ND	0.0050	"		ND			20	
trans-1,2-Dichloroethene	ND	0.0050	"		ND			20	
1,2-Dichloropropane	ND	0.0050	"		ND			20	
1,3-Dichloropropane	ND	0.0050	"		ND			20	
2,2-Dichloropropane	ND	0.0050	"		ND			20	
1,1-Dichloropropene	ND	0.0050	"		ND			20	
cis-1,3-Dichloropropene	ND	0.0050	"		ND			20	
trans-1,3-Dichloropropene	ND	0.0050	"		ND			20	
Ethylbenzene	ND	0.0050	"		ND			20	
1,2-Dibromoethane (EDB)	ND	0.0050	"		ND			20	
Hexachlorobutadiene	ND	0.0050	"		ND			20	
Isopropylbenzene	ND	0.0050	"		ND			20	
4-Isopropyl Toluene	ND	0.0050	"		ND			20	
Methylene chloride	0.00296	0.0050	"		0.00300		1.34	20	
Naphthalene	ND	0.0050	"		ND			20	
n-Propylbenzene	ND	0.0050	"		ND			20	
Styrene	ND	0.0050	"		ND			20	
1,1,1,2-Tetrachloroethane	ND	0.0050	"		ND			20	
1,1,2,2-Tetrachloroethane	ND	0.0050	"		ND			20	
Tetrachloroethene (PCE)	ND	0.0050	"		ND			20	
Toluene	ND	0.0050	"		ND			20	
1,2,3-Trichlorobenzene	ND	0.0050	"		ND			20	
1,2,4-Trichlorobenzene	ND	0.0050	"		ND			20	
1,1,1-Trichloroethane	ND	0.0050	"		ND			20	
1,1,2-Trichloroethane	ND	0.0050	"		ND			20	
Trichloroethene (TCE)	ND	0.0050	"		ND			20	
Trichlorofluoromethane	ND	0.0050	"		ND			20	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772

FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

Volatile Organic Compounds by EPA Method 8260B --Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch A904043 - EPA 5030B VOCGCMS

Duplicate (A904043-DUP1)	Source: 0900880-03			Prepared & Analyzed: 04-Apr-09						
1,2,3-Trichloropropane	ND	0.0050	mg/kg		ND				20	
1,2,4-Trimethylbenzene	ND	0.0050	"		ND				20	
1,3,5-Trimethylbenzene	ND	0.0050	"		ND				20	
Vinyl chloride	ND	0.0050	"		ND				20	
Xylenes (total)	ND	0.0050	"		ND				20	
Surrogate: Dibromofluoromethane	0.103		"	0.100		103	70-130			
Surrogate: Toluene-d8	0.0954		"	0.100		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.0951		"	0.100		95.1	70-130			

Batch A904050 - EPA 5030B VOCGCMS

Blank (A904050-BLK2)	Prepared & Analyzed: 06-Apr-09									
Benzene	ND	0.0050	mg/kg							
Bromobenzene	ND	0.0050	"							
Bromochloromethane	ND	0.0050	"							
Bromodichloromethane	ND	0.0050	"							
Bromoform	ND	0.0050	"							
Bromomethane	ND	0.0050	"							
n-Butylbenzene	ND	0.0050	"							
sec-Butylbenzene	ND	0.0050	"							
tert-Butylbenzene	ND	0.0050	"							
Carbon tetrachloride	ND	0.0050	"							
Chlorobenzene	ND	0.0050	"							
Chloroethane	ND	0.0050	"							
2-Chloroethylvinyl ether	ND	0.0050	"							
Chloroform	ND	0.0050	"							
Chloromethane	ND	0.0050	"							
2-Chlorotoluene	ND	0.0050	"							
4-Chlorotoluene	ND	0.0050	"							
1,2-Dibromo-3-chloropropane	ND	0.0050	"							
Dibromochloromethane	ND	0.0050	"							
Dibromomethane	ND	0.0050	"							
1,2-Dichlorobenzene	ND	0.0050	"							
1,3-Dichlorobenzene	ND	0.0050	"							
1,4-Dichlorobenzene	ND	0.0050	"							
Dichlorodifluoromethane	ND	0.0050	"							
1,1-Dichloroethane	ND	0.0050	"							
1,2-Dichloroethane	ND	0.0050	"							
1,1-Dichloroethene	ND	0.0050	"							
cis-1,2-Dichloroethene	ND	0.0050	"							
trans-1,2-Dichloroethene	ND	0.0050	"							

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria-CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904050 - EPA 5030B VOCGCMS										
Blank (A904050-BLK2)										
Prepared & Analyzed: 06-Apr-09										
1,2-Dichloropropane	ND	0.0050	mg/kg							
1,3-Dichloropropane	ND	0.0050	"							
2,2-Dichloropropane	ND	0.0050	"							
1,1-Dichloropropene	ND	0.0050	"							
cis-1,3-Dichloropropene	ND	0.0050	"							
trans-1,3-Dichloropropene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
1,2-Dibromoethane (EDB)	ND	0.0050	"							
Hexachlorobutadiene	ND	0.0050	"							
Isopropylbenzene	ND	0.0050	"							
4-Isopropyl Toluene	ND	0.0050	"							
Methylene chloride	ND	0.0050	"							
Naphthalene	ND	0.0050	"							
n-Propylbenzene	ND	0.0050	"							
Styrene	ND	0.0050	"							
1,1,1,2-Tetrachloroethane	ND	0.0050	"							
1,1,2,2-Tetrachloroethane	ND	0.0050	"							
Tetrachloroethene (PCE)	ND	0.0050	"							
Toluene	ND	0.0050	"							
1,2,3-Trichlorobenzene	ND	0.0050	"							
1,2,4-Trichlorobenzene	ND	0.0050	"							
1,1,1-Trichloroethane	ND	0.0050	"							
1,1,2-Trichloroethane	ND	0.0050	"							
Trichloroethene (TCE)	ND	0.0050	"							
Trichlorofluoromethane	ND	0.0050	"							
1,2,3-Trichloropropane	ND	0.0050	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Vinyl chloride	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: Dibromofluoromethane	0.0996		"	0.100		99.6	70-130			
Surrogate: Toluene-d8	0.0983		"	0.100		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.0964		"	0.100		96.4	70-130			

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301-S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031-20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904050 - EPA 5030B-VOCGCMS										
LCS (A904050-BS1)				Prepared & Analyzed: 06-Apr-09						
Benzene	0.0899	0.0050	mg/kg	0.100		89.9	70-130			
Chlorobenzene	0.0909	0.0050	"	0.100		90.9	70-130			
1,1-Dichloroethene	0.0880	0.0050	"	0.100		88.0	70-130			
Toluene	0.0877	0.0050	"	0.100		87.7	70-130			
Trichloroethene (TCE)	0.0891	0.0050	"	0.100		89.1	70-130			
Surrogate: Dibromofluoromethane	0.0950		"	0.100		95.0	70-130			
Surrogate: Toluene-d8	0.0981		"	0.100		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.0958		"	0.100		95.8	70-130			
LCS Dup (A904050-BSD1)				Prepared & Analyzed: 06-Apr-09						
Benzene	0.0935	0.0050	mg/kg	0.100		93.5	70-130	3.93	20	
Chlorobenzene	0.0946	0.0050	"	0.100		94.6	70-130	4.05	20	
1,1-Dichloroethene	0.0923	0.0050	"	0.100		92.3	70-130	4.79	20	
Toluene	0.0927	0.0050	"	0.100		92.7	70-130	5.54	20	
Trichloroethene (TCE)	0.0908	0.0050	"	0.100		90.8	70-130	1.96	20	
Surrogate: Dibromofluoromethane	0.101		"	0.100		101	70-130			
Surrogate: Toluene-d8	0.100		"	0.100		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0968		"	0.100		96.8	70-130			
Duplicate (A904050-DUP1)				Source: 0900880-01 Prepared & Analyzed: 06-Apr-09						
Benzene	ND	0.0050	mg/kg		ND				20	
Bromobenzene	ND	0.0050	"		ND				20	
Bromochloromethane	ND	0.0050	"		ND				20	
Bromodichloromethane	ND	0.0050	"		ND				20	
Bromoform	ND	0.0050	"		ND				20	
Bromomethane	ND	0.0050	"		ND				20	
n-Butylbenzene	ND	0.0050	"		ND				20	
sec-Butylbenzene	ND	0.0050	"		ND				20	
tert-Butylbenzene	ND	0.0050	"		ND				20	
Carbon tetrachloride	ND	0.0050	"		ND				20	
Chlorobenzene	ND	0.0050	"		ND				20	
Chloroethane	ND	0.0050	"		ND				20	
2-Chloroethylvinyl ether	ND	0.0050	"		ND				20	
Chloroform	ND	0.0050	"		ND				20	
Chloromethane	ND	0.0050	"		ND				20	
2-Chlorotoluene	ND	0.0050	"		ND				20	
4-Chlorotoluene	ND	0.0050	"		ND				20	
1,2-Dibromo-3-chloropropane	ND	0.0050	"		ND				20	
Dibromochloromethane	ND	0.0050	"		ND				20	
Dibromomethane	ND	0.0050	"		ND				20	
1,2-Dichlorobenzene	ND	0.0050	"		ND				20	

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke 301 S. Miller St., Ste. 210 Santa Maria CA, 93454	Project: Renco-Investec Investigation Project Number: Remedial Assessment 002-08031.20.004 Project Manager: Aaron Hook	Reported: 07-Apr-09 13:18
---	--	------------------------------

-Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904050 - EPA 5030B VOCGCMS										
Duplicate (A904050-DUP1)		Source: 0900880-01			Prepared & Analyzed: 06-Apr-09					
1,3-Dichlorobenzene	ND	0.0050	mg/kg		ND				20	
1,4-Dichlorobenzene	ND	0.0050	"		ND				20	
Dichlorodifluoromethane	ND	0.0050	"		ND				20	
1,1-Dichloroethane	ND	0.0050	"		ND				20	
1,2-Dichloroethane	ND	0.0050	"		ND				20	
1,1-Dichloroethene	ND	0.0050	"		ND				20	
cis-1,2-Dichloroethene	0.00344	0.0050	"		0.00656			62.4	20	QR-04
trans-1,2-Dichloroethene	ND	0.0050	"		ND				20	
1,2-Dichloropropane	ND	0.0050	"		ND				20	
1,3-Dichloropropane	ND	0.0050	"		ND				20	
2,2-Dichloropropane	ND	0.0050	"		ND				20	
1,1-Dichloropropene	ND	0.0050	"		ND				20	
cis-1,3-Dichloropropene	ND	0.0050	"		ND				20	
trans-1,3-Dichloropropene	ND	0.0050	"		ND				20	
Ethylbenzene	ND	0.0050	"		ND				20	
1,2-Dibromoethane (EDB)	ND	0.0050	"		ND				20	
Hexachlorobutadiene	ND	0.0050	"		ND				20	
Isopropylbenzene	ND	0.0050	"		ND				20	
4-Isopropyl Toluene	ND	0.0050	"		ND				20	
Methylene chloride	0.00324	0.0050	"		0.00556			52.7	20	QR-04
Naphthalene	ND	0.0050	"		ND				20	
n-Propylbenzene	ND	0.0050	"		ND				20	
Styrene	ND	0.0050	"		ND				20	
1,1,1,2-Tetrachloroethane	ND	0.0050	"		ND				20	
1,1,2,2-Tetrachloroethane	ND	0.0050	"		ND				20	
Tetrachloroethene (PCE)	ND	0.0050	"		ND				20	
Toluene	ND	0.0050	"		ND				20	
1,2,3-Trichlorobenzene	ND	0.0050	"		ND				20	
1,2,4-Trichlorobenzene	ND	0.0050	"		ND				20	
1,1,1-Trichloroethane	ND	0.0050	"		ND				20	
1,1,2-Trichloroethane	ND	0.0050	"		ND				20	
Trichloroethene (TCE)	0.00412	0.0050	"		0.00728			55.4	20	QR-04
Trichlorofluoromethane	ND	0.0050	"		ND				20	
1,2,3-Trichloropropane	ND	0.0050	"		ND				20	
1,2,4-Trimethylbenzene	ND	0.0050	"		ND				20	
1,3,5-Trimethylbenzene	ND	0.0050	"		ND				20	
Vinyl chloride	ND	0.0050	"		ND				20	
Xylenes (total)	ND	0.0050	"		ND				20	
Surrogate: Dibromofluoromethane	0.104		"	0.100		104	70-130			
Surrogate: Toluene-d8	0.0980		"	0.100		98.0	70-130			

Oilfield Environmental and Compliance

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

307 Roemer Way, Suite 300, Santa Maria, CA 93454

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A904050 - EPA 5030B-VOCGCMS-										
Duplicate (A904050-DUP1)		Source: 0900880-01			Prepared & Analyzed: 06-Apr-09					
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0926		mg/kg	0.100		92.6	70-130			

Oilfield Environmental and Compliance

307 Roemer Way, Suite 300, Santa Maria, CA 93454

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

www.oecusa.com

TEL: (805) 922-4772
FAX: (805) 925-3376



Oilfield Environmental and Compliance, INC.

LFR-Levine Fricke
301 S. Miller St., Ste. 210
Santa Maria CA, 93454

Project: Renco-Investec Investigation
Project Number: Remedial Assessment 002-08031.20.004
Project Manager: Aaron Hook

Reported:
07-Apr-09 13:18

Notes and Definitions

- QR-04 The RPD exceeded the QC control limits.
- O-01 This compound is a common laboratory contaminant.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference